

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU111919\  
 Data File : VU035760.D  
 Acq On : 19 Nov 2019 09:19  
 Operator : JC/MD  
 Sample : VSTDCCC005  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 2 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: Nov 20 00:36:50 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR110419WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Tue Nov 19 13:54:59 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 6.29  | 114  | 239777   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.45  | 117  | 271709   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.84 | 152  | 155591   | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.61   | 65    | 104935   | 4.25     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 85.00%  |
| 7) Chloroethane-d5             | 1.93   | 69    | 96065    | 4.76     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 95.20%  |
| 11) 1,1-Dichloroethene-d2      | 2.59   | 63    | 193655   | 4.66     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 93.20%  |
| 20) 2-Butanone-d5              | 4.70   | 46    | 276612   | 50.76    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 101.52% |
| 24) Chloroform-d               | 5.11   | 84    | 196471   | 5.00     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 100.00% |
| 26) 1,2-Dichloroethane-d4      | 5.75   | 65    | 97768    | 4.73     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 94.60%  |
| 32) Benzene-d6                 | 5.77   | 84    | 371441   | 4.34     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 86.80%  |
| 36) 1,2-Dichloropropane-d6     | 6.73   | 67    | 123916   | 4.48     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 89.60%  |
| 41) Toluene-d8                 | 7.93   | 98    | 343768   | 4.25     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 85.00%  |
| 43) trans-1,3-Dichloropropene- | 8.21   | 79    | 48198    | 4.36     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 87.20%  |
| 46) 2-Hexanone-d5              | 8.68   | 63    | 215028   | 49.68    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 99.36%  |
| 57) 1,1,2,2-Tetrachloroethane- | 10.78  | 84    | 111591   | 4.81     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 96.20%  |
| 64) 1,2-Dichlorobenzene-d4     | 12.22  | 152   | 134877   | 4.37     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 87.40%  |

## Target Compounds

|                                |      |     |        |        | Ovalue   |
|--------------------------------|------|-----|--------|--------|----------|
| 2) Dichlorodifluoromethane     | 1.40 | 85  | 141340 | 5.478  | ug/L 99  |
| 3) Chloromethane               | 1.53 | 50  | 154032 | 5.176  | ug/L 99  |
| 5) Vinyl chloride              | 1.62 | 62  | 168483 | 5.527  | ug/L 98  |
| 6) Bromomethane                | 1.87 | 94  | 87246  | 5.020  | ug/L 99  |
| 8) Chloroethane                | 1.95 | 64  | 100552 | 5.749  | ug/L 97  |
| 9) Trichlorofluoromethane      | 2.16 | 101 | 214431 | 5.765  | ug/L 99  |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.61 | 101 | 123563 | 5.624  | ug/L 99  |
| 12) 1,1-Dichloroethene         | 2.61 | 96  | 119123 | 5.650  | ug/L 84  |
| 13) Acetone                    | 2.68 | 43  | 206934 | 52.672 | ug/L 98  |
| 14) Carbon disulfide           | 2.82 | 76  | 371340 | 5.431  | ug/L 99  |
| 15) Methyl Acetate             | 3.00 | 43  | 49332  | 5.405  | ug/L 98  |
| 16) Methylene chloride         | 3.08 | 84  | 132777 | 5.312  | ug/L 98  |
| 17) Methyl tert-butyl Ether    | 3.42 | 73  | 267252 | 5.408  | ug/L 100 |
| 18) trans-1,2-Dichloroethene   | 3.39 | 96  | 120187 | 5.535  | ug/L 99  |
| 19) 1,1-Dichloroethane         | 3.92 | 63  | 222222 | 5.512  | ug/L 98  |
| 21) 2-Butanone                 | 4.78 | 43  | 313259 | 53.699 | ug/L 100 |
| 22) cis-1,2-Dichloroethene     | 4.72 | 96  | 127149 | 5.303  | ug/L 100 |

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 ALS Vial : 2 Sample Multiplier: 1

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 ClientSampleId :

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 Quant Title : TRACE VOA SOM01.0  
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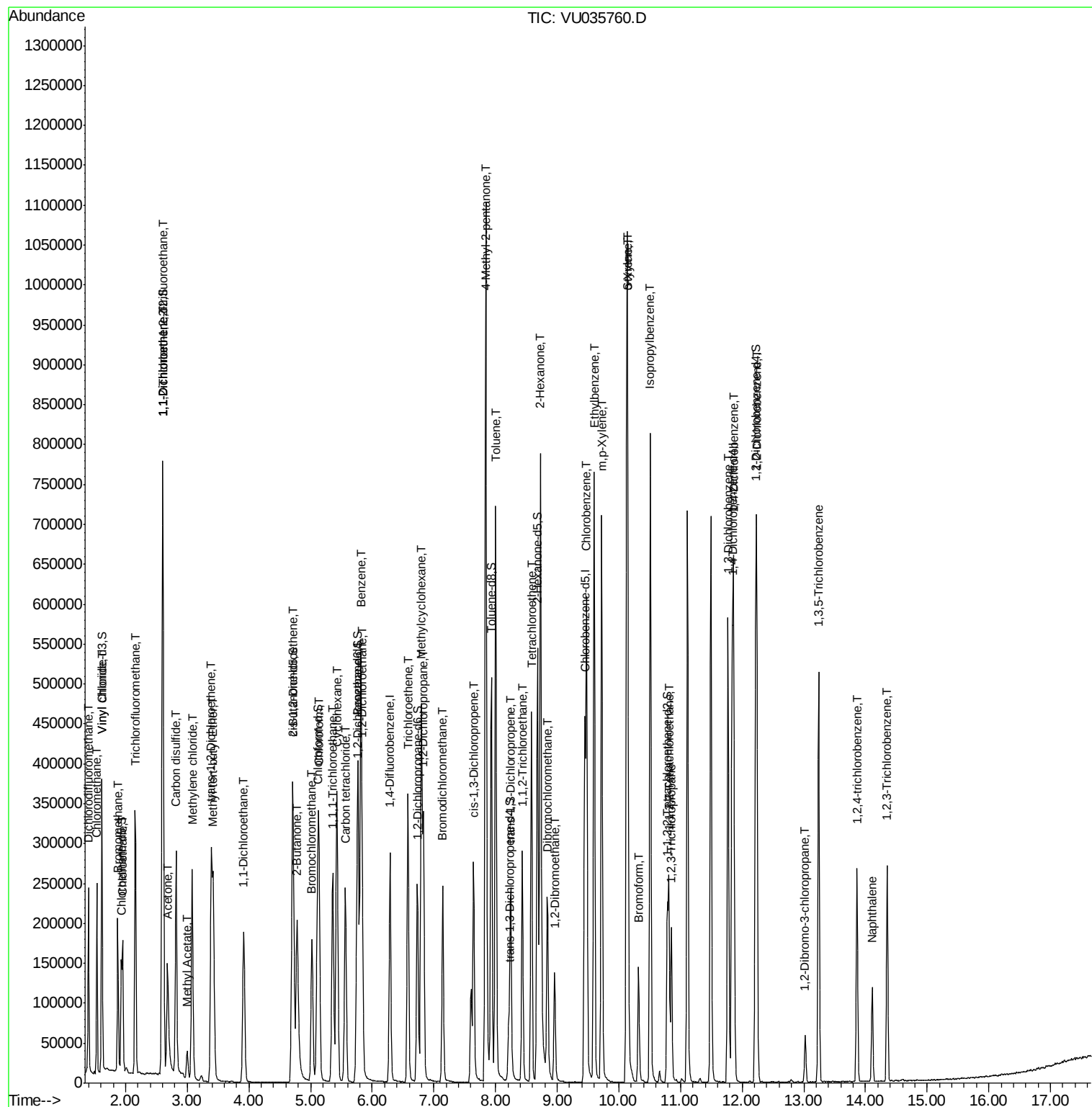
| Internal Standards              | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|---------------------------------|-------|------|----------|--------|-------|----------|
| 23) Bromochloromethane          | 5.02  | 128  | 62577    | 5.510  | ug/L  | 98       |
| 25) Chloroform                  | 5.13  | 83   | 256300   | 5.847  | ug/L  | 98       |
| 27) 1,2-Dichloroethane          | 5.84  | 62   | 135178   | 5.540  | ug/L  | 100      |
| 29) 1,1,1-Trichloroethane       | 5.36  | 97   | 190826   | 5.335  | ug/L  | 99       |
| 30) Cyclohexane                 | 5.43  | 56   | 172829   | 4.833  | ug/L  | 100      |
| 31) Carbon tetrachloride        | 5.57  | 117  | 171313   | 5.314  | ug/L  | 97       |
| 33) Benzene                     | 5.82  | 78   | 500096   | 5.230  | ug/L  | 100      |
| 34) Trichloroethene             | 6.58  | 95   | 124727   | 5.097  | ug/L  | 97       |
| 35) Methylcyclohexane           | 6.80  | 83   | 176296   | 4.729  | ug/L  | 99       |
| 37) 1,2-Dichloropropane         | 6.83  | 63   | 131661   | 5.226  | ug/L  | 100      |
| 38) Bromodichloromethane        | 7.14  | 83   | 163109   | 5.351  | ug/L  | 100      |
| 39) cis-1,3-Dichloropropene     | 7.64  | 75   | 174655   | 4.857  | ug/L  | 97       |
| 40) 4-Methyl-2-pentanone        | 7.84  | 43   | 731491   | 50.491 | ug/L  | 99       |
| 42) Toluene                     | 8.00  | 91   | 549188   | 5.459  | ug/L  | 98       |
| 44) trans-1,3-Dichloropropene   | 8.25  | 75   | 146473   | 5.095  | ug/L  | 97       |
| 45) 1,1,2-Trichloroethane       | 8.43  | 97   | 95129    | 5.272  | ug/L  | 99       |
| 47) Tetrachloroethene           | 8.58  | 164  | 112932   | 5.296  | ug/L  | 96       |
| 48) 2-Hexanone                  | 8.73  | 43   | 546700   | 53.097 | ug/L  | 96       |
| 49) Dibromochloromethane        | 8.84  | 129  | 118460   | 5.322  | ug/L  | 98       |
| 50) 1,2-Dibromoethane           | 8.96  | 107  | 91968    | 5.372  | ug/L  | 99       |
| 51) Chlorobenzene               | 9.48  | 112  | 341056   | 5.163  | ug/L  | 99       |
| 52) Ethylbenzene                | 9.60  | 91   | 539554   | 5.096  | ug/L  | 99       |
| 53) m,p-Xylene                  | 9.72  | 106  | 215499   | 5.375  | ug/L  | 99       |
| 54) o-Xylene                    | 10.13 | 106  | 205375   | 5.301  | ug/L  | 99       |
| 55) Styrene                     | 10.14 | 104  | 353331   | 5.516  | ug/L  | 99       |
| 56) Isopropylbenzene            | 10.51 | 105  | 538629   | 5.268  | ug/L  | 99       |
| 58) 1,1,1,2,2-Tetrachloroethane | 10.81 | 83   | 124154   | 5.266  | ug/L  | 100      |
| 59) 1,2,3-Trichloropropane      | 10.85 | 75   | 88088    | 5.286  | ug/L  | 97       |
| 61) Bromoform                   | 10.32 | 173  | 70881    | 5.012  | ug/L  | 99       |
| 62) 1,3-Dichlorobenzene         | 11.77 | 146  | 271748   | 5.194  | ug/L  | 99       |
| 63) 1,4-Dichlorobenzene         | 11.86 | 146  | 265339   | 5.267  | ug/L  | 99       |
| 65) 1,2-Dichlorobenzene         | 12.24 | 146  | 254430   | 5.182  | ug/L  | 99       |
| 66) 1,2-Dibromo-3-chloropropan  | 13.02 | 75   | 15480    | 4.955  | ug/L  | 95       |
| 67) 1,3,5-Trichlorobenzene      | 13.24 | 180  | 176352   | 5.230  | ug/L  | 100      |
| 68) 1,2,4-trichlorobenzene      | 13.86 | 180  | 91799    | 4.518  | ug/L  | 99       |
| 69) Naphthalene                 | 14.11 | 128  | 95861    | 3.832  | ug/L  | 99       |
| 70) 1,2,3-Trichlorobenzene      | 14.35 | 180  | 90992    | 4.632  | ug/L  | 98       |

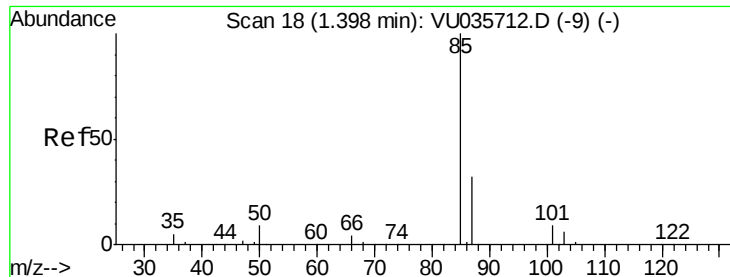
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Response via : Initial Calibration





#2

Dichlorodifluoromethane

Concen: 5.478 ug/L

RT: 1.40 min Scan# 18

Delta R.T. 0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

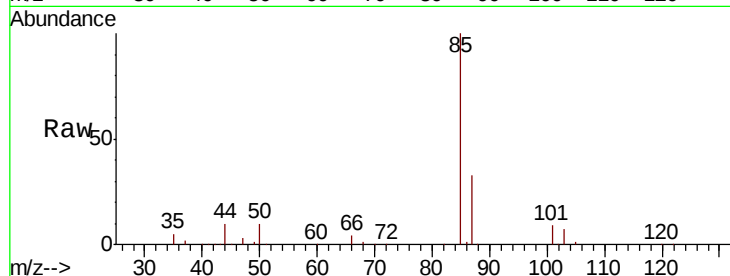
Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion: 85 Resp: 141340

Ion Ratio Lower Upper

85 100

87 33.2 26.8 40.2



Abundance Ion 85.00 (84.70 to 85.70): VU035712.D (-9) (-)

Ion 87.00 (86.70 to 87.70): VU035712.D (-9) (-)

1.40

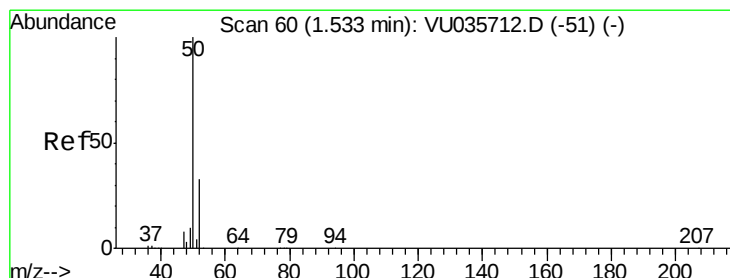
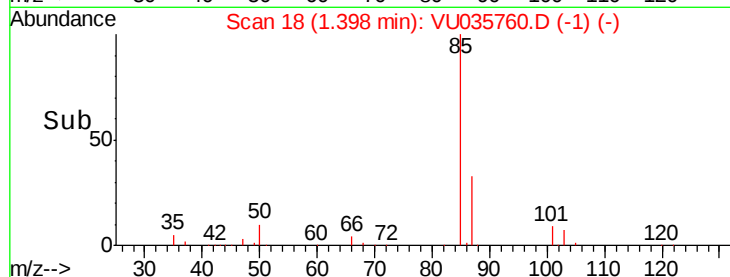
150000

100000

50000

0

Time-->



#3

Chloromethane

Concen: 5.176 ug/L

RT: 1.53 min Scan# 60

Delta R.T. 0.00 min

Lab File: VU035760.D

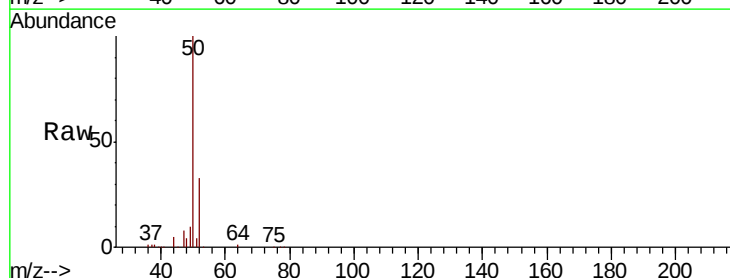
Acq: 19 Nov 2019 09:19

Tgt Ion: 50 Resp: 154032

Ion Ratio Lower Upper

50 100

52 32.7 23.4 43.6



Abundance Ion 50.05 (49.75 to 50.75): VU035712.D (-51) (-)

Ion 52.05 (51.75 to 52.75): VU035712.D (-51) (-)

1.53

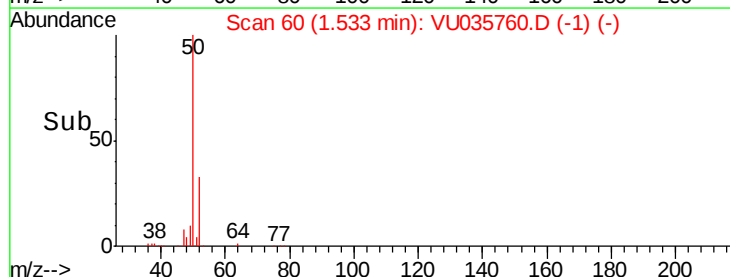
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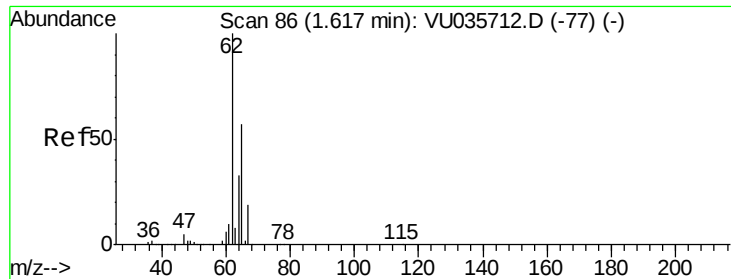
100000

50000

0

Time-->





#5

Vinyl chloride

Concen: 5.527 ug/L

RT: 1.62 min Scan# 86

Delta R.T. 0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

Instrument :

MSVOA\_U

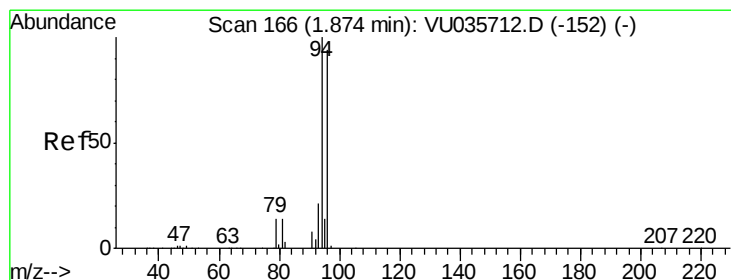
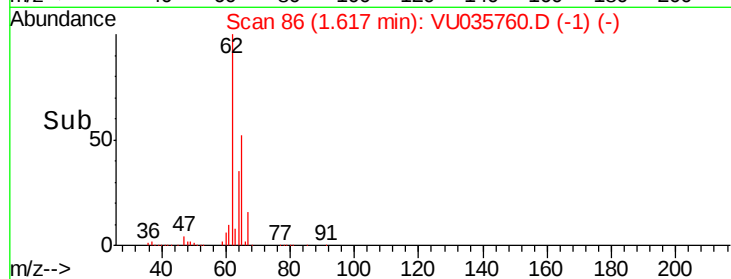
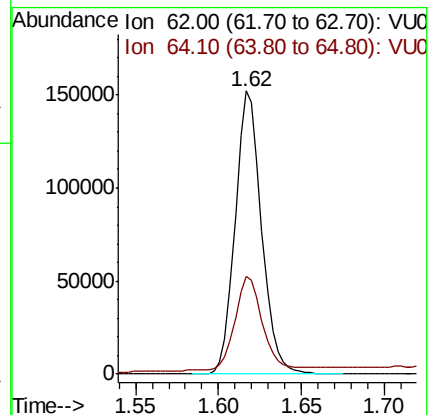
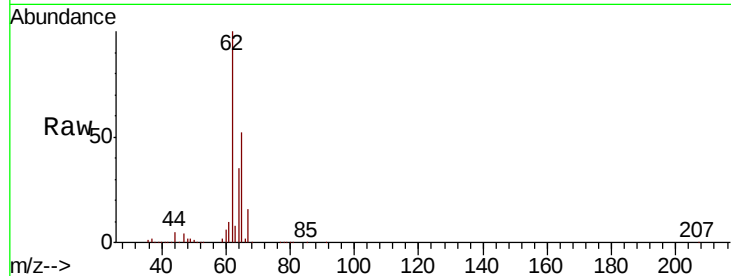
ClientSampleId :

Tot Ion: 62 Resp: 168483

Ion Ratio Lower Upper

62 100

64 34.5 23.5 43.7



#6

Bromomethane

Concen: 5.020 ug/L

RT: 1.87 min Scan# 166

Delta R.T. -0.00 min

Lab File: VU035760.D

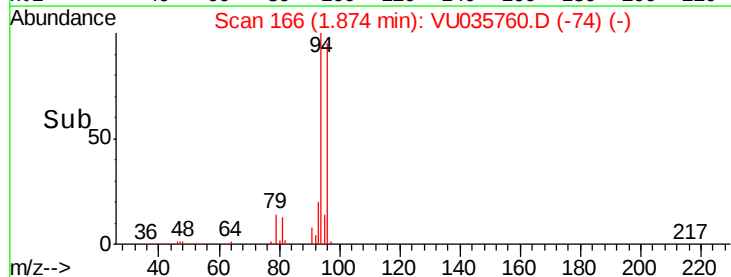
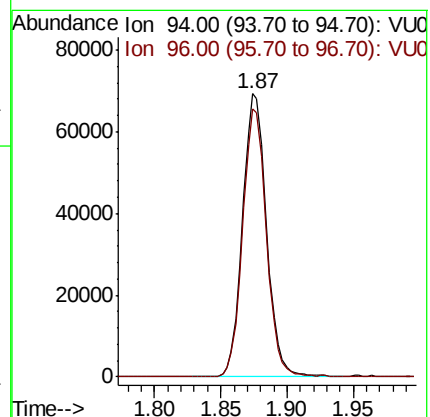
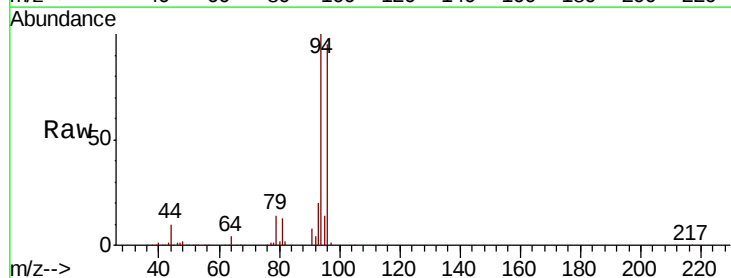
Acq: 19 Nov 2019 09:19

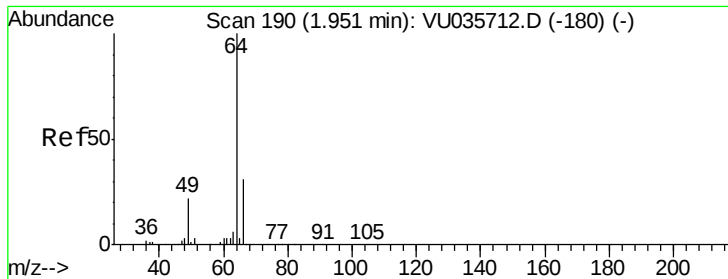
Tgt Ion: 94 Resp: 87246

Ion Ratio Lower Upper

94 100

96 94.8 66.8 124.2





#8

Chloroethane

Concen: 5.749 ug/L

RT: 1.95 min Scan# 190

Delta R.T. -0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

Instrument :

MSVOA\_U

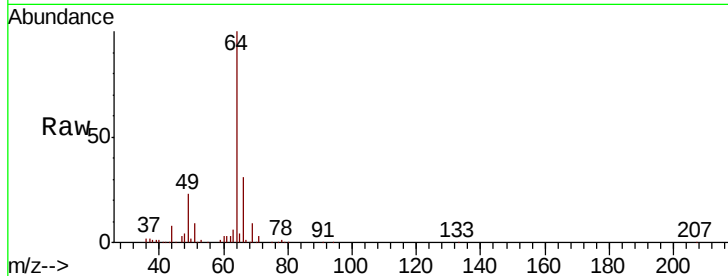
ClientSampleId :

Tot Ion: 64 Resp: 100552

Ion Ratio Lower Upper

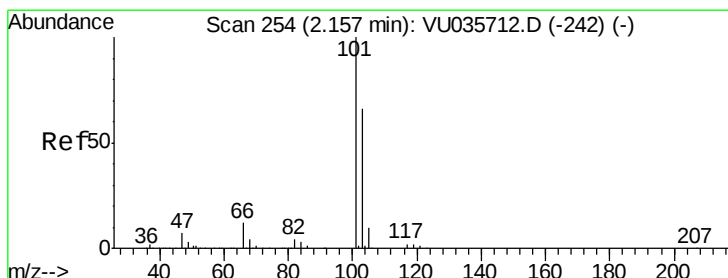
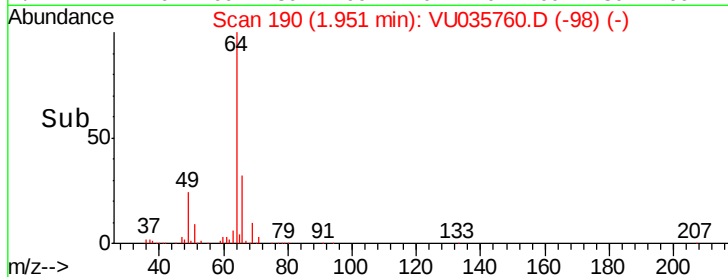
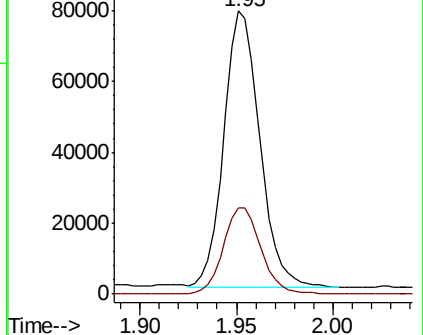
64 100

66 30.7 22.5 41.7



Abundance Ion 64.10 (63.80 to 64.80): VU035712.D (-180) (-)

Ion 66.05 (65.75 to 66.75): VU035712.D (-180) (-)



#9

Trichlorofluoromethane

Concen: 5.765 ug/L

RT: 2.16 min Scan# 254

Delta R.T. -0.00 min

Lab File: VU035760.D

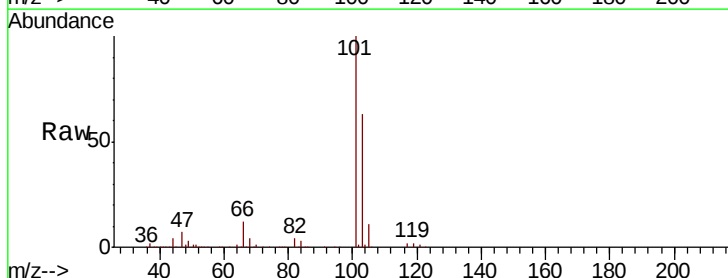
Acq: 19 Nov 2019 09:19

Tgt Ion: 101 Resp: 214431

Ion Ratio Lower Upper

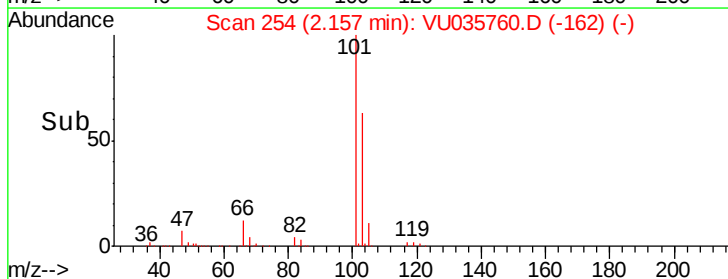
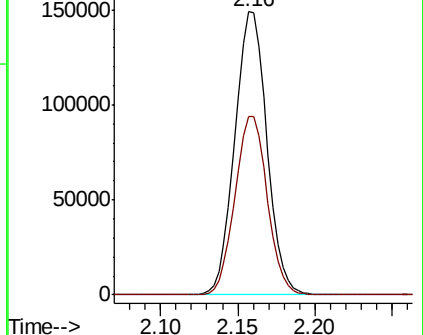
101 100

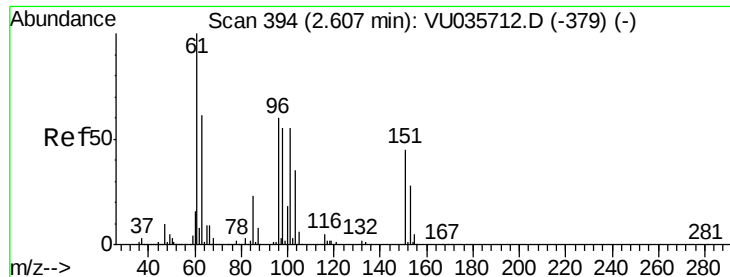
103 63.7 51.8 77.6



Abundance Ion 101.00 (100.70 to 101.70): VU035712.D (-242) (-)

Ion 103.00 (102.70 to 103.70): VU035712.D (-242) (-)





#10

1,1,2-Trichloro-1,2,2-trifluoroethane

Concen: 5.624 ug/L

RT: 2.61 min Scan# 394

Delta R.T. 0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

Instrument :

MSVOA\_U

ClientSampleId :

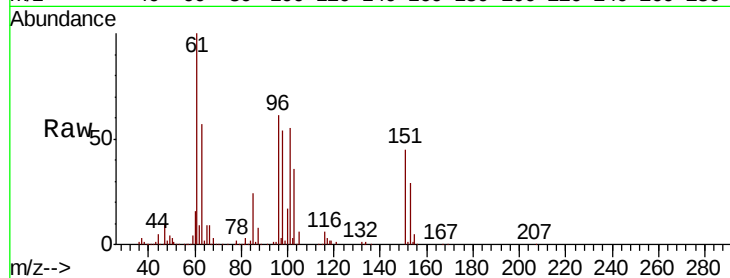
Tot Ion:101 Resp: 123563

Ion Ratio Lower Upper

101 100

85 43.9 35.0 52.6

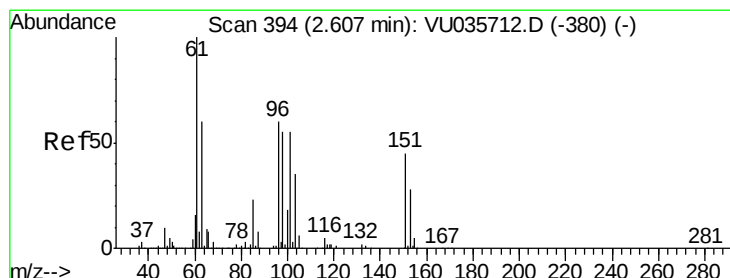
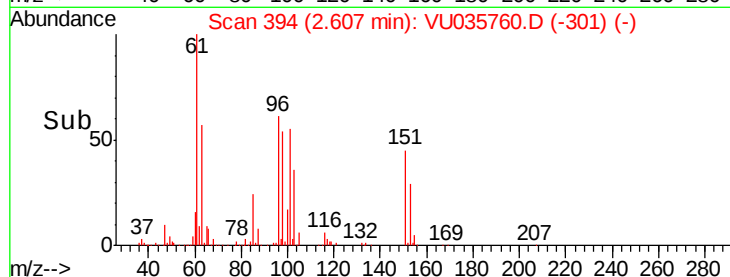
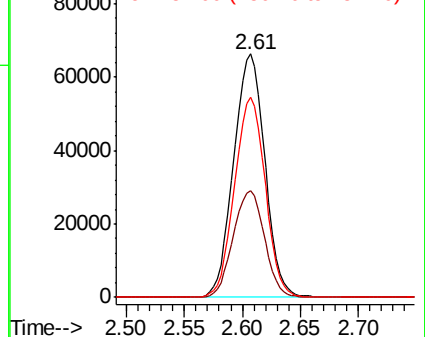
151 80.6 64.0 96.0



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VU0

Ion 151.00 (150.70 to 151.70): V



#12

1,1-Dichloroethene

Concen: 5.650 ug/L

RT: 2.61 min Scan# 394

Delta R.T. 0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

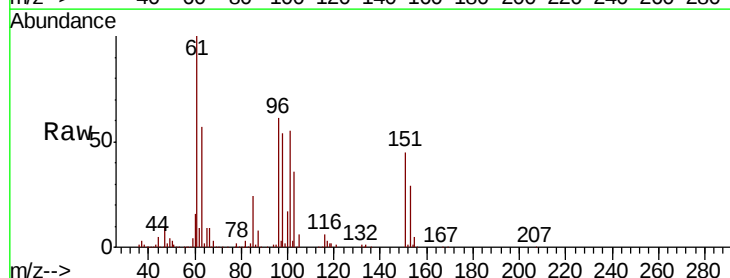
Tgt Ion: 96 Resp: 119123

Ion Ratio Lower Upper

96 100

61 164.5 123.1 228.5

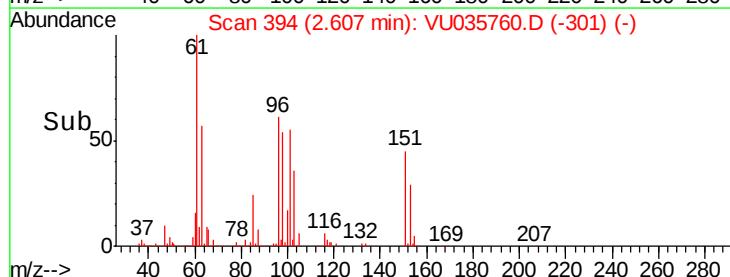
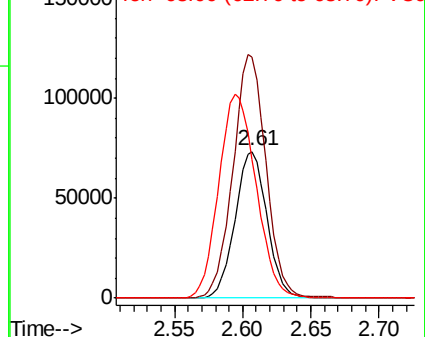
63 94.4 87.8 163.0

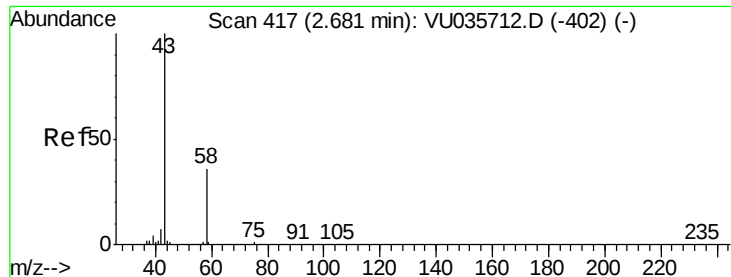


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.05 (60.75 to 61.75): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 52.672 ug/L

RT: 2.68 min Scan# 417

Delta R.T. -0.01 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

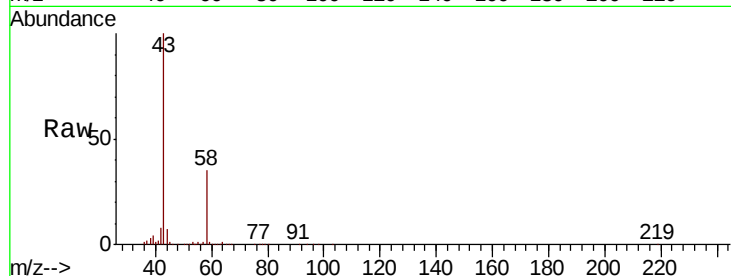
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 43 Resp: 206934

Ion Ratio Lower Upper

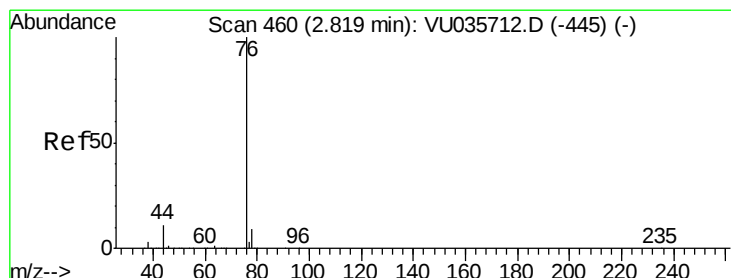
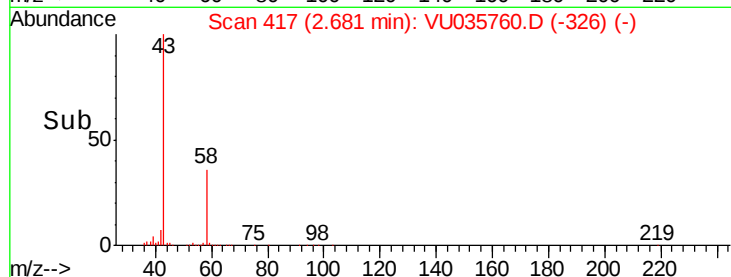
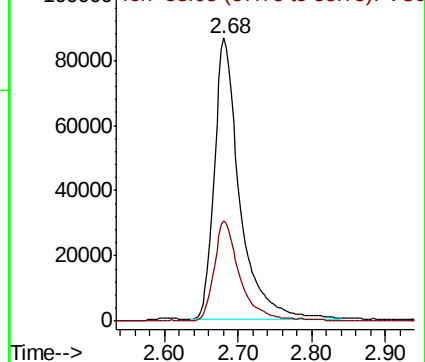
43 100

58 36.0 0.0 69.8



Abundance Ion 43.05 (42.75 to 43.75): VU035712.D (-402) (-)

Ion 58.05 (57.75 to 58.75): VU035712.D (-402) (-)



#14

Carbon disulfide

Concen: 5.431 ug/L

RT: 2.82 min Scan# 460

Delta R.T. 0.00 min

Lab File: VU035760.D

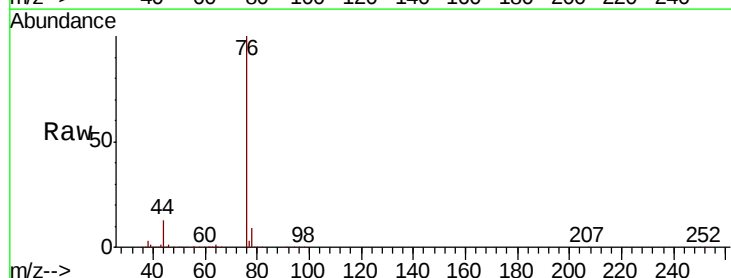
Acq: 19 Nov 2019 09:19

Tgt Ion: 76 Resp: 371340

Ion Ratio Lower Upper

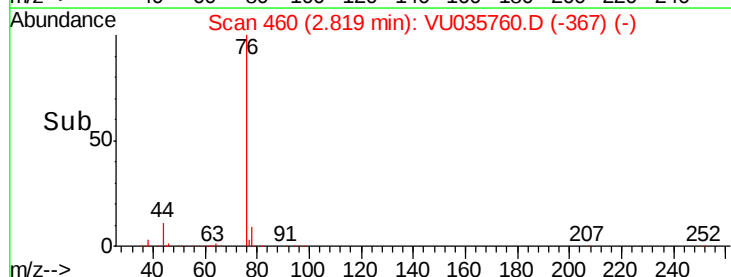
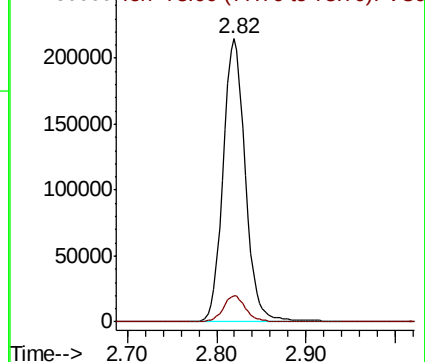
76 100

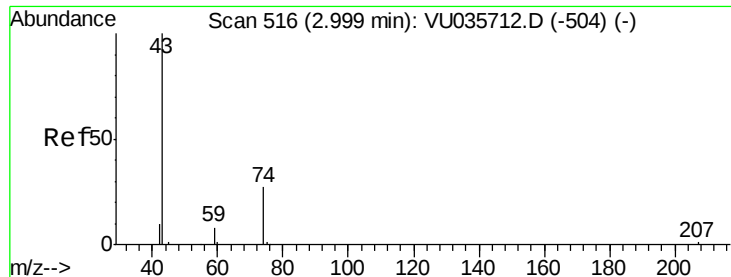
78 9.4 7.4 11.0



Abundance Ion 76.05 (75.75 to 76.75): VU035712.D (-445) (-)

Ion 78.00 (77.70 to 78.70): VU035712.D (-445) (-)





#15

Methvl Acetate

Concen: 5.405 ug/L

RT: 3.00 min Scan# 516

Delta R.T. -0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

Instrument :

MSVOA\_U

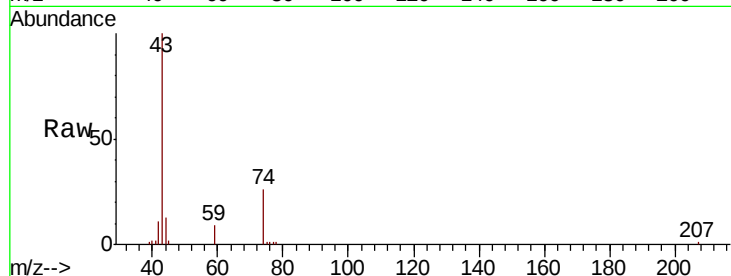
ClientSampleId :

Tot Ion: 43 Resp: 49332

Ion Ratio Lower Upper

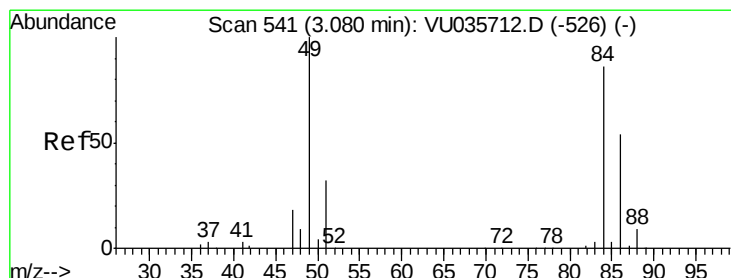
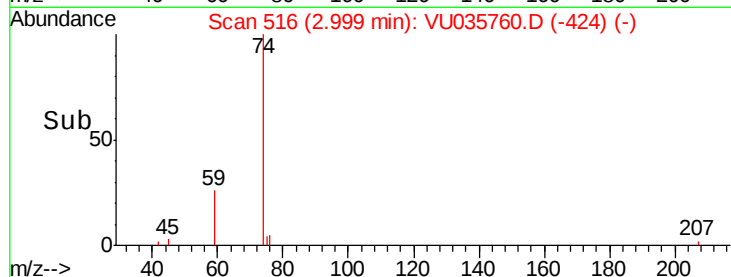
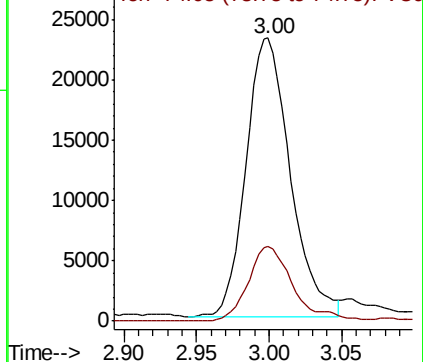
43 100

74 25.4 21.0 31.6



Abundance Ion 43.05 (42.75 to 43.75): VU0

Ion 74.05 (73.75 to 74.75): VU0



#16

Methylene chloride

Concen: 5.312 ug/L

RT: 3.08 min Scan# 541

Delta R.T. 0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

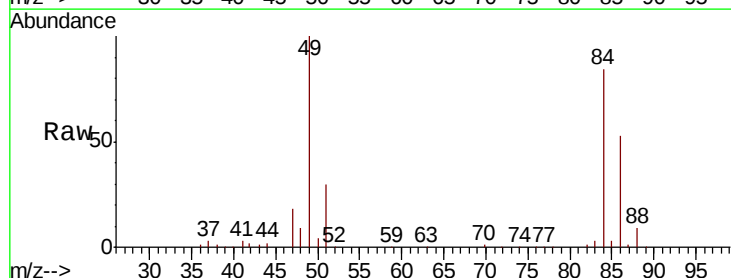
Tgt Ion: 84 Resp: 132777

Ion Ratio Lower Upper

84 100

86 63.6 45.8 85.2

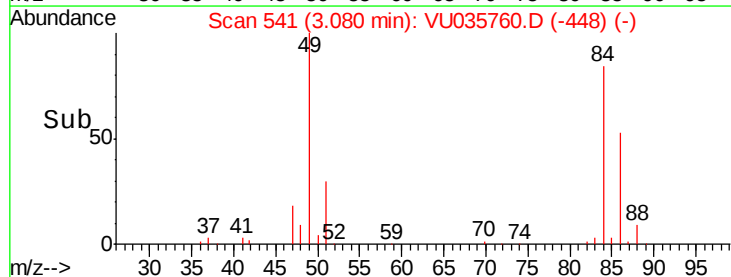
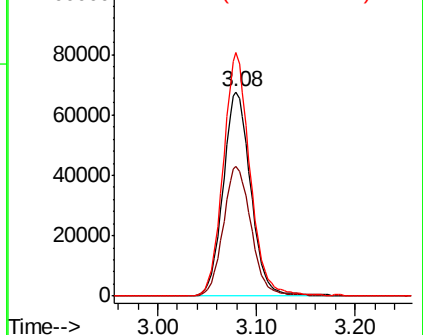
49 119.3 81.9 152.1

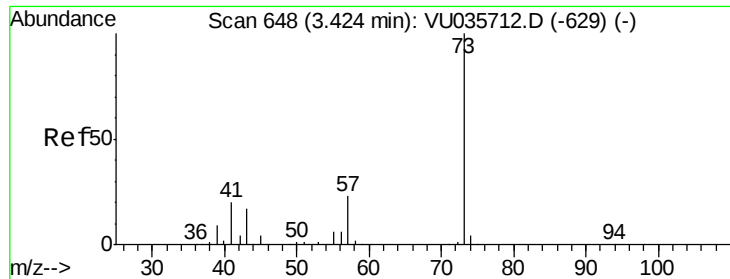


Abundance Ion 84.05 (83.75 to 84.75): VU0

Ion 86.00 (85.70 to 86.70): VU0

Ion 49.10 (48.80 to 49.80): VU0



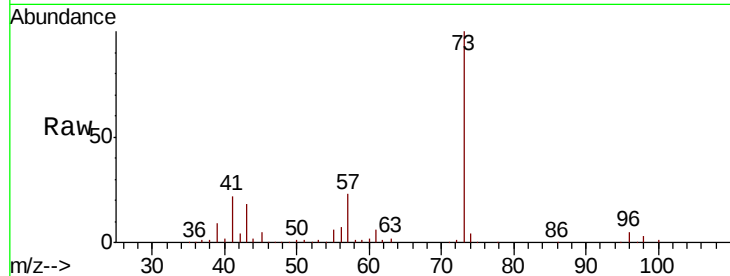


#17

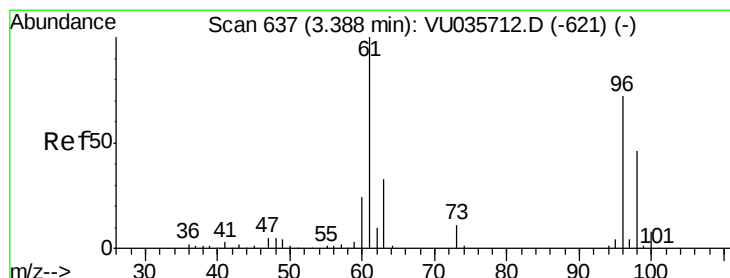
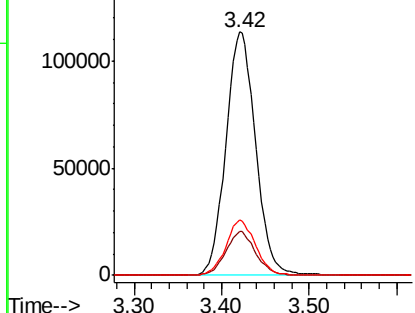
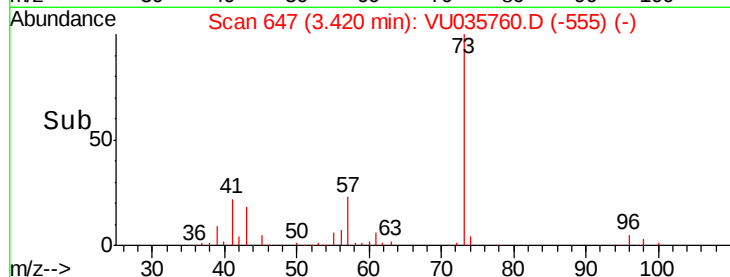
Methvl tert-butvl Ether  
Concen: 5.408 ug/L  
RT: 3.42 min Scan# 647  
Delta R.T. -0.00 min  
Lab File: VU035760.D  
Acq: 19 Nov 2019 09:19

Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 73 Resp: 267252  
Ion Ratio Lower Upper  
73 100  
43 17.8 14.4 21.6  
57 22.7 18.2 27.2



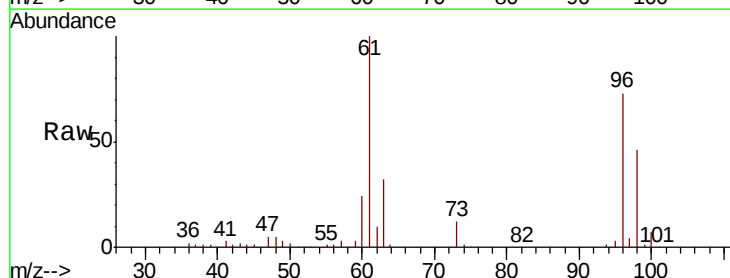
Abundance Ion 73.10 (72.80 to 73.80): VU0  
Ion 43.05 (42.75 to 43.75): VU0  
Ion 57.10 (56.80 to 57.80): VU0



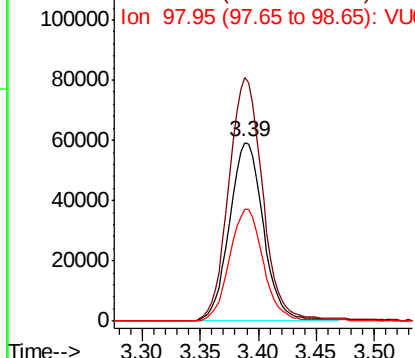
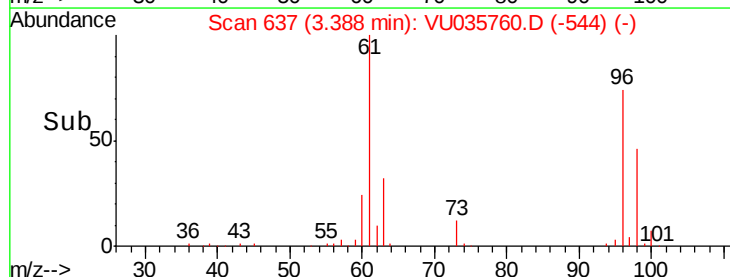
#18

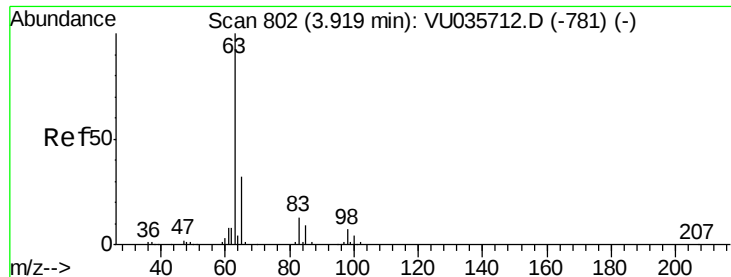
trans-1,2-Dichloroethene  
Concen: 5.535 ug/L  
RT: 3.39 min Scan# 637  
Delta R.T. 0.00 min  
Lab File: VU035760.D  
Acq: 19 Nov 2019 09:19

Tgt Ion: 96 Resp: 120187  
Ion Ratio Lower Upper  
96 100  
61 136.1 95.0 176.4  
98 62.4 42.5 78.9



Abundance Ion 96.00 (95.70 to 96.70): VU0  
Ion 61.05 (60.75 to 61.75): VU0  
Ion 97.95 (97.65 to 98.65): VU0

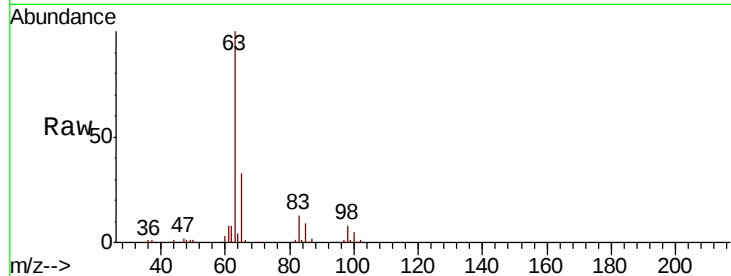




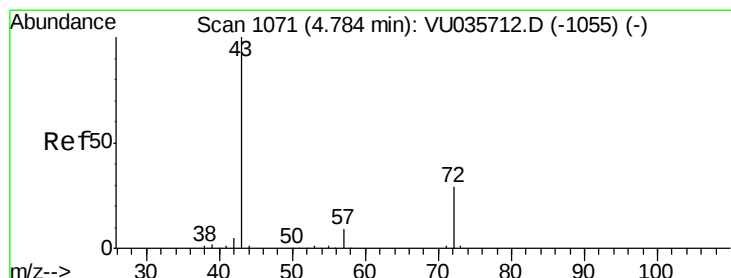
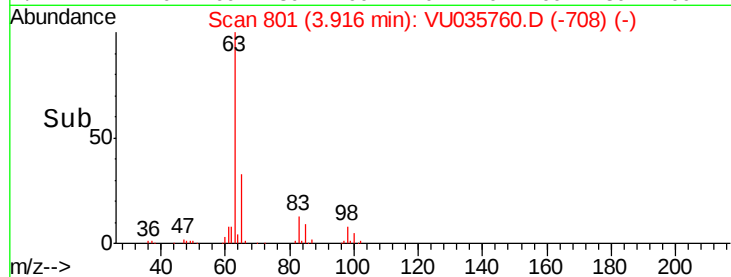
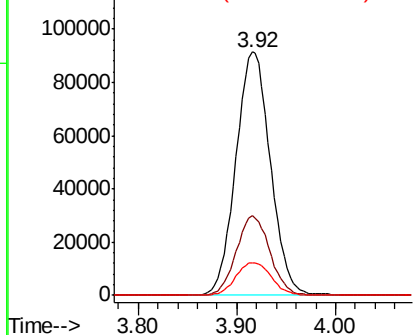
#19  
 1,1-Dichloroethane  
 Concen: 5.512 ug/L  
 RT: 3.92 min Scan# 801  
 Delta R.T. 0.00 min  
 Lab File: VU035760.D  
 Acq: 19 Nov 2019 09:19

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Tot Ion: 63 Resp: 222222  
 Ion Ratio Lower Upper  
 63 100  
 65 32.6 22.0 40.8  
 83 13.4 9.3 17.3

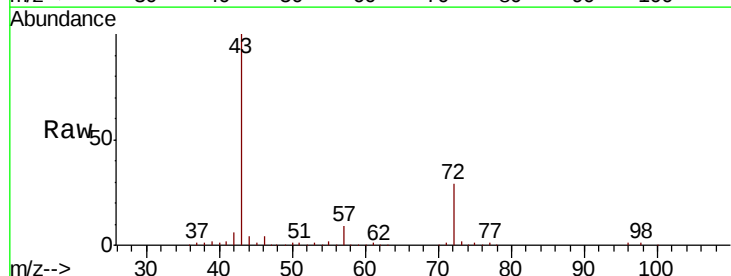


Abundance Ion 63.10 (62.80 to 63.80): VU0  
 Ion 65.10 (64.80 to 65.80): VU0  
 Ion 83.05 (82.75 to 83.75): VU0

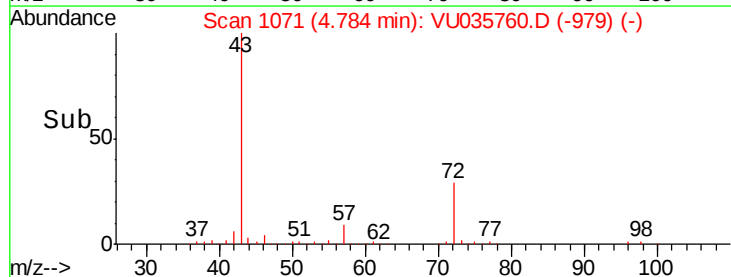
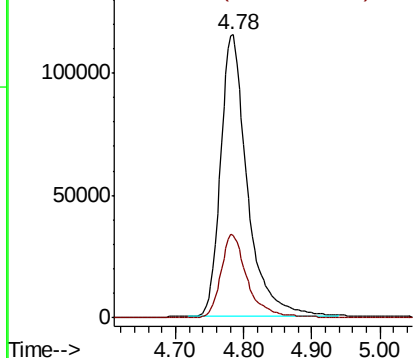


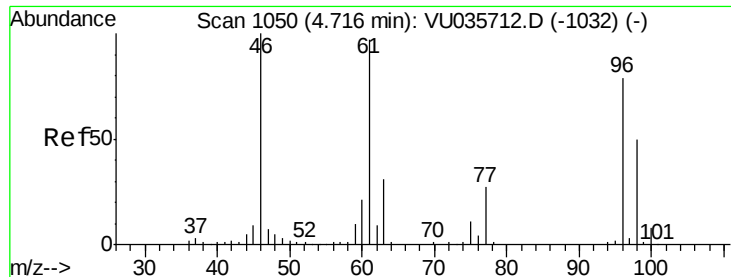
#21  
 2-Butanone  
 Concen: 53.699 ug/L  
 RT: 4.78 min Scan# 1071  
 Delta R.T. -0.00 min  
 Lab File: VU035760.D  
 Acq: 19 Nov 2019 09:19

Tgt Ion: 43 Resp: 313259  
 Ion Ratio Lower Upper  
 43 100  
 72 28.6 14.3 42.9



Abundance Ion 43.05 (42.75 to 43.75): VU0  
 Ion 72.10 (71.80 to 72.80): VU0





#22

cis-1,2-Dichloroethene

Concen: 5.303 ug/L

RT: 4.72 min Scan# 1050

Delta R.T. 0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

Instrument :

MSVOA\_U

ClientSampleId :

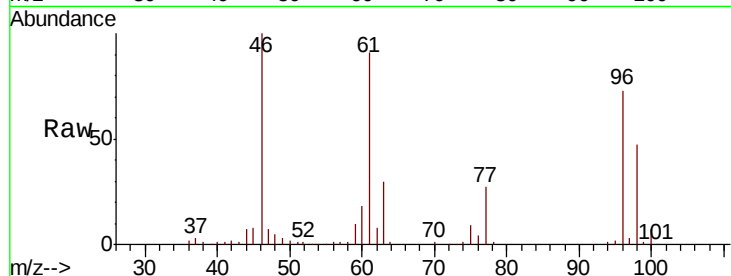
Tot Ion: 96 Resp: 127149

Ion Ratio Lower Upper

96 100

61 124.5 87.0 161.6

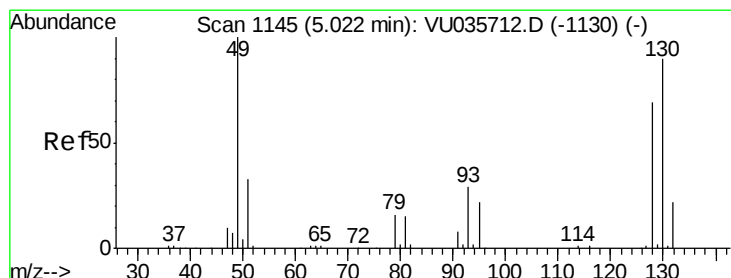
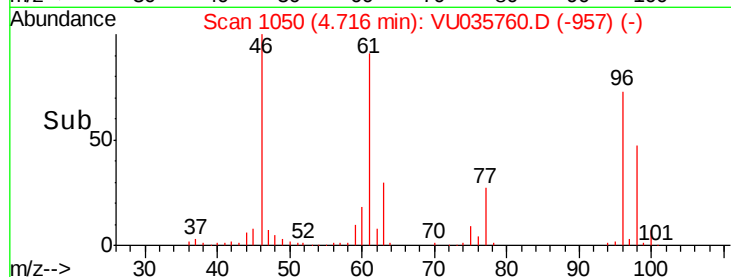
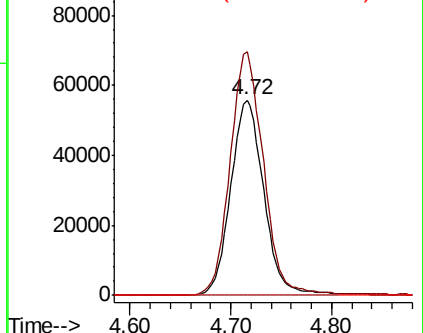
68 0.0 0.0 0.0



Abundance Ion 96.00 (95.70 to 96.70): VU035760.D (-957) (-)

Ion 61.05 (60.75 to 61.75): VU035760.D (-957) (-)

Ion 68.15 (67.85 to 68.85): VU035760.D (-957) (-)



#23

Bromochloromethane

Concen: 5.510 ug/L

RT: 5.02 min Scan# 1145

Delta R.T. -0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

Tgt Ion: 128 Resp: 62577

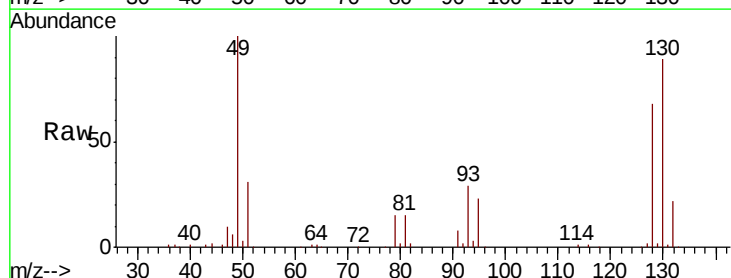
Ion Ratio Lower Upper

128 100

49 147.1 104.1 193.3

130 130.2 88.4 164.2

51 45.9 37.7 56.5

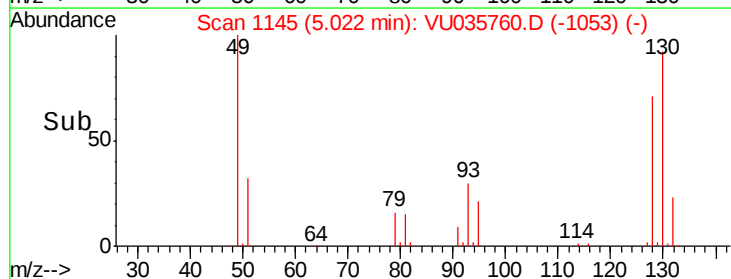
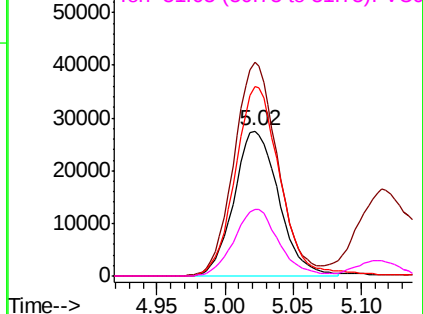


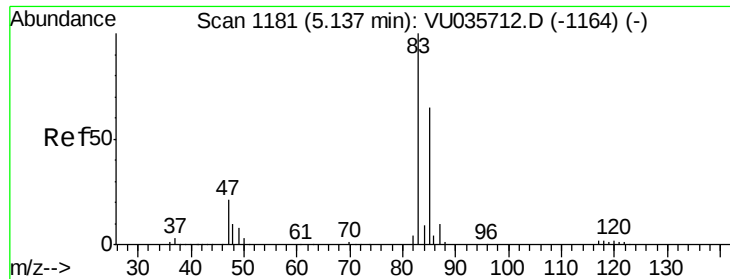
Abundance Ion 127.90 (127.60 to 128.60): VU035760.D (-1053) (-)

Ion 49.10 (48.80 to 49.80): VU035760.D (-1053) (-)

Ion 129.95 (129.65 to 130.65): VU035760.D (-1053) (-)

Ion 51.05 (50.75 to 51.75): VU035760.D (-1053) (-)

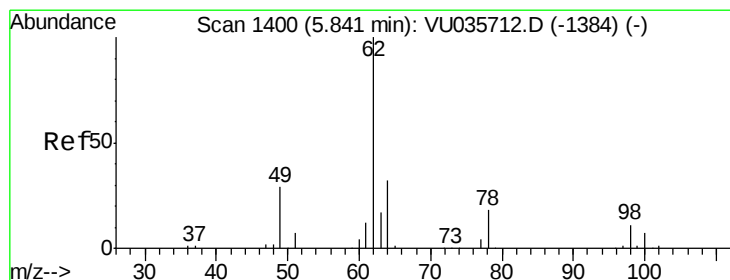
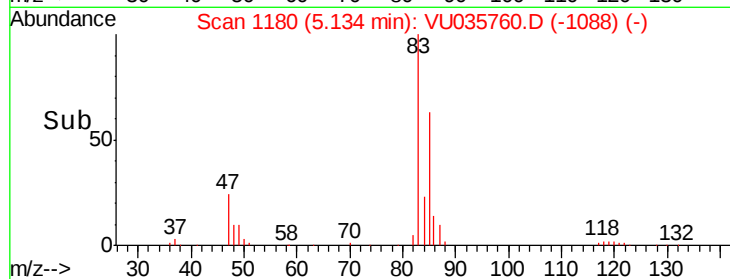
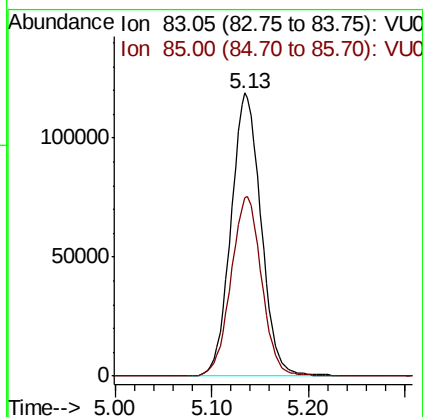
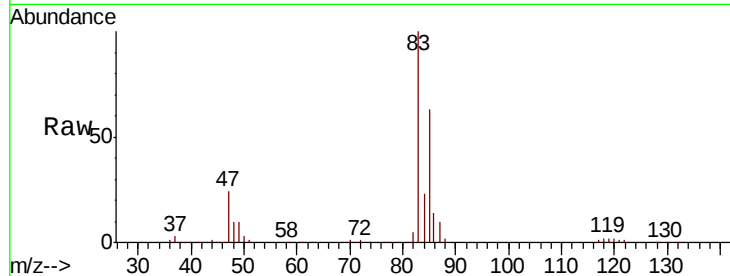




#25  
Chloroform  
Concen: 5.847 ug/L  
RT: 5.13 min Scan# 1180  
Delta R.T. -0.00 min  
Lab File: VU035760.D  
Acq: 19 Nov 2019 09:19

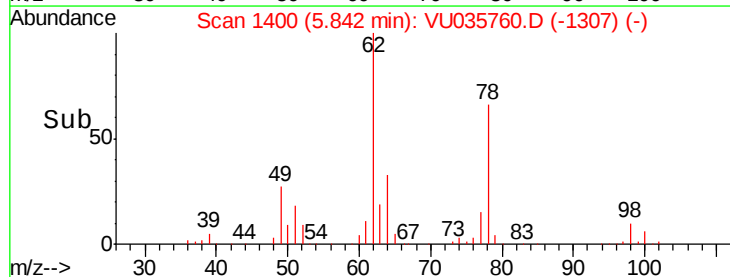
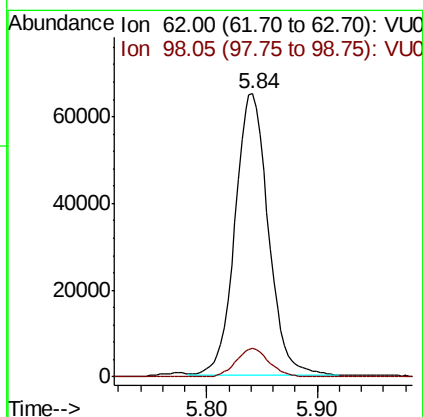
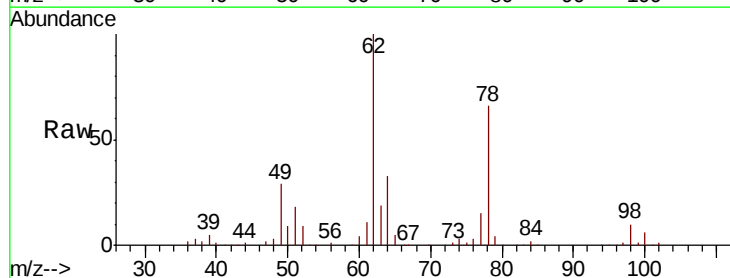
Instrument :  
MSVOA\_U  
ClientSampled :

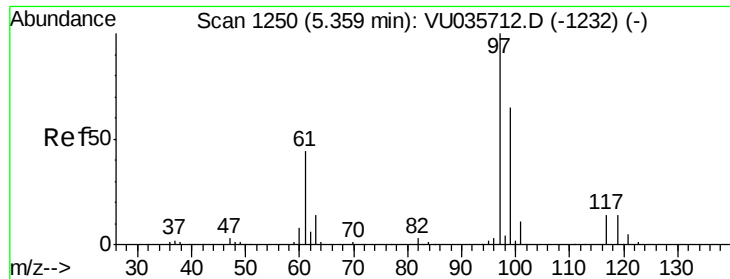
Tot Ion: 83 Resp: 256300  
Ion Ratio Lower Upper  
83 100  
85 63.0 45.4 84.2



#27  
1,2-Dichloroethane  
Concen: 5.540 ug/L  
RT: 5.84 min Scan# 1400  
Delta R.T. 0.00 min  
Lab File: VU035760.D  
Acq: 19 Nov 2019 09:19

Tgt Ion: 62 Resp: 135178  
Ion Ratio Lower Upper  
62 100  
98 10.0 8.0 12.0

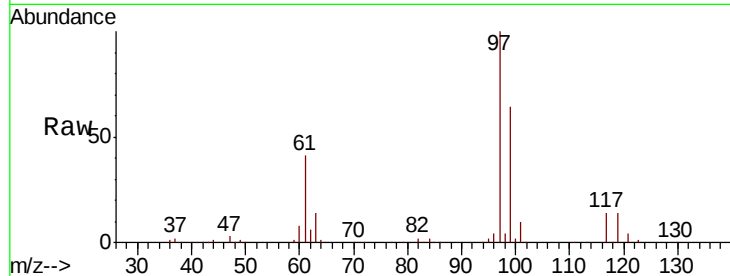




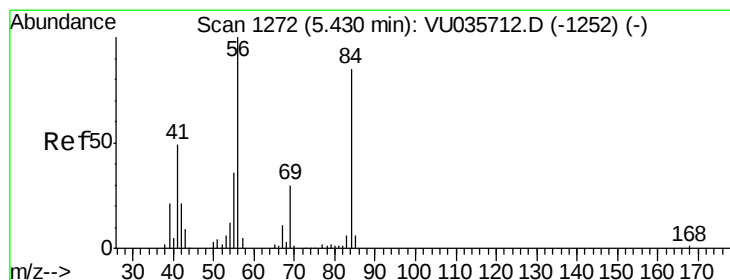
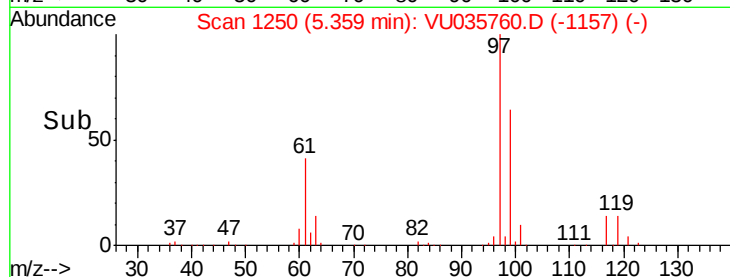
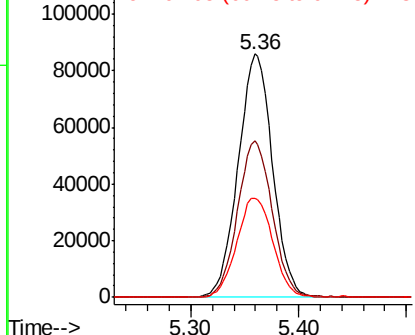
#29  
 1,1,1-Trichloroethane  
 Concen: 5.335 ug/L  
 RT: 5.36 min Scan# 1250  
 Delta R.T. 0.00 min  
 Lab File: VU035760.D  
 Acq: 19 Nov 2019 09:19

Instrument :  
 MSVOA\_U  
 ClientSampled :

| Tot Ion   | 97    | Resp  | 190826 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 97        | 100   |       |        |
| 99        | 64.7  | 51.3  | 76.9   |
| 61        | 42.9  | 34.4  | 51.6   |

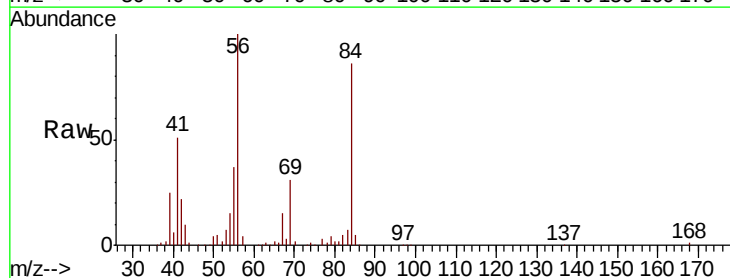


Abundance Ion 96.95 (96.65 to 97.65): VU0  
 Ion 99.05 (98.75 to 99.75): VU0  
 Ion 61.05 (60.75 to 61.75): VU0

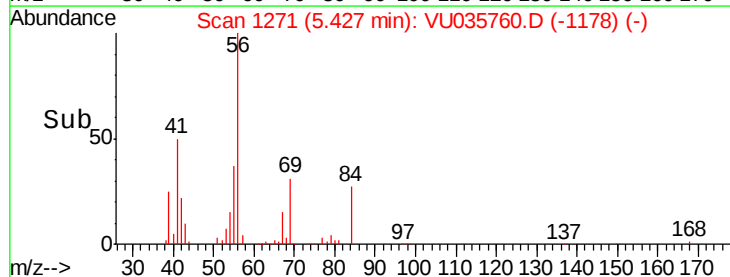
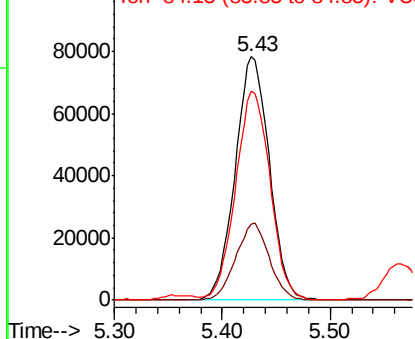


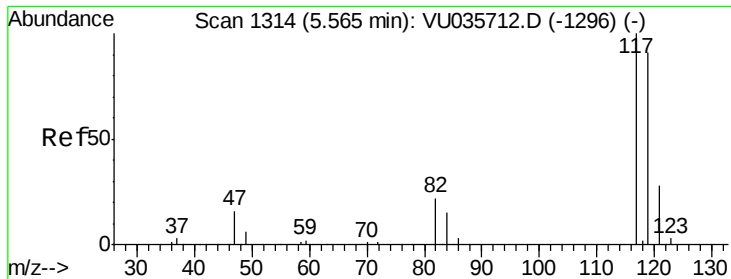
#30  
 Cyclohexane  
 Concen: 4.833 ug/L  
 RT: 5.43 min Scan# 1271  
 Delta R.T. 0.00 min  
 Lab File: VU035760.D  
 Acq: 19 Nov 2019 09:19

| Tgt Ion   | 56    | Resp  | 172829 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 56        | 100   |       |        |
| 69        | 31.0  | 24.6  | 37.0   |
| 84        | 86.8  | 69.7  | 104.5  |



Abundance Ion 56.10 (55.80 to 56.80): VU0  
 Ion 69.15 (68.85 to 69.85): VU0  
 Ion 84.15 (83.85 to 84.85): VU0





#31

Carbon tetrachloride

Concen: 5.314 ug/L

RT: 5.57 min Scan# 1314

Delta R.T. 0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

Instrument :

MSVOA\_U

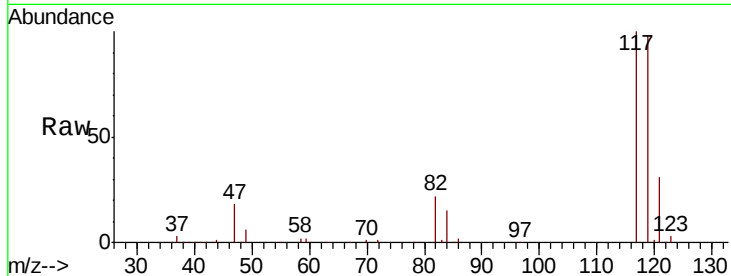
ClientSampleId :

Tot Ion:117 Resp: 171313

Ion Ratio Lower Upper

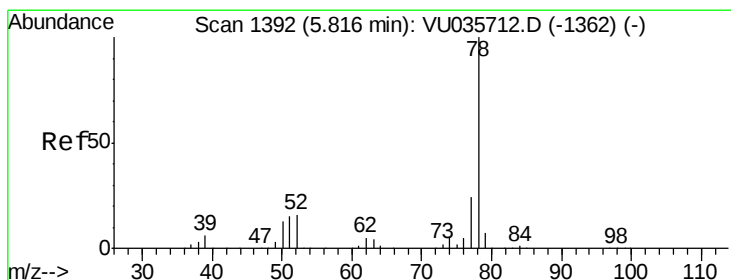
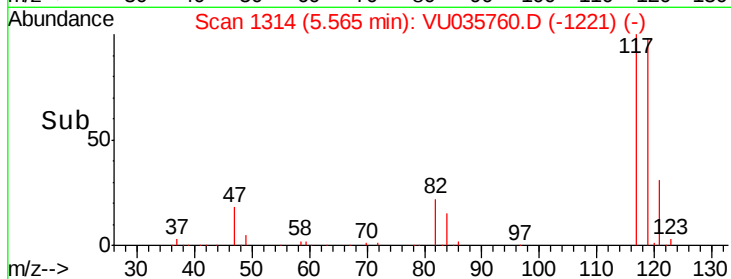
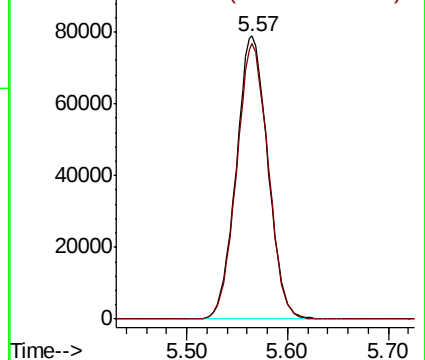
117 100

119 97.1 75.3 112.9



Abundance Ion 116.90 (116.60 to 117.60): V

Ion 118.90 (118.60 to 119.60): V



#33

Benzene

Concen: 5.230 ug/L

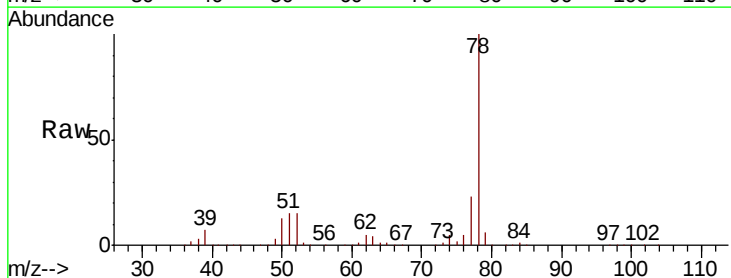
RT: 5.82 min Scan# 1392

Delta R.T. 0.00 min

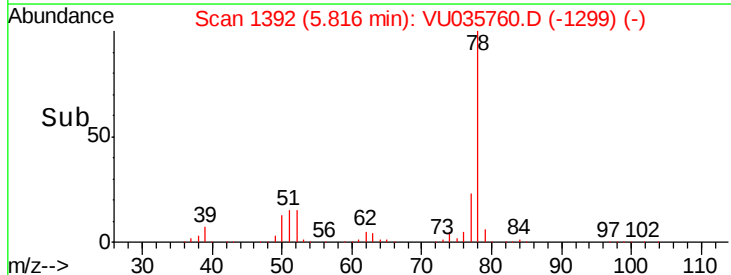
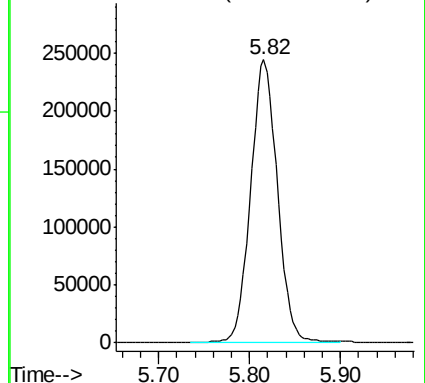
Lab File: VU035760.D

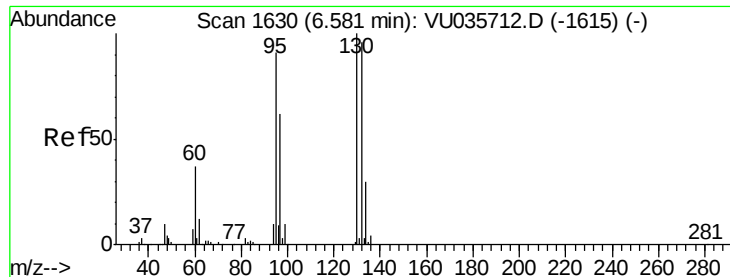
Acq: 19 Nov 2019 09:19

Tgt Ion: 78 Resp: 500096



Abundance Ion 78.10 (77.80 to 78.80): VU0

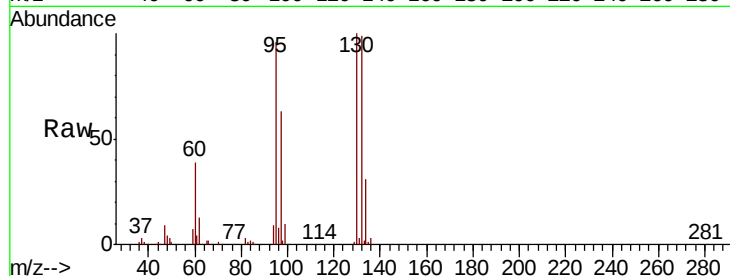




#34  
 Trichloroethene  
 Concen: 5.097 ug/L  
 RT: 6.58 min Scan# 1630  
 Delta R.T. 0.00 min  
 Lab File: VU035760.D  
 Acq: 19 Nov 2019 09:19

Instrument :  
 MSVOA\_U  
 ClientSampled :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 97      | 65.4  | 44.5  | 82.7  |
| 132     | 103.3 | 69.9  | 129.7 |
| 130     | 103.9 | 74.1  | 137.7 |



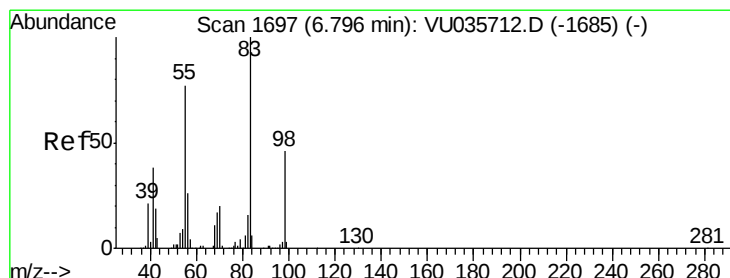
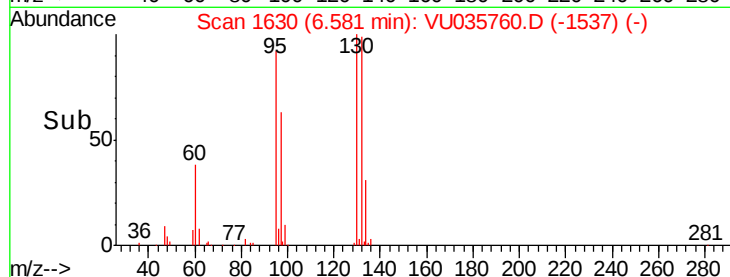
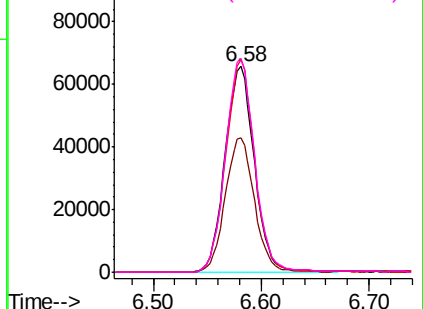
Abundance

Ion 95.00 (94.70 to 95.70): VU0

Ion 96.95 (96.65 to 97.65): VU0

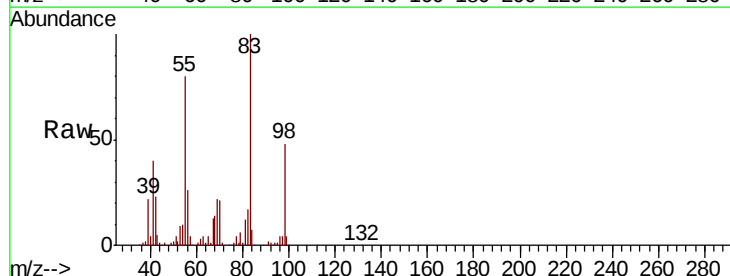
Ion 131.95 (131.65 to 132.65): V

Ion 129.95 (129.65 to 130.65): V



#35  
 Methylcyclohexane  
 Concen: 4.729 ug/L  
 RT: 6.80 min Scan# 1698  
 Delta R.T. 0.00 min  
 Lab File: VU035760.D  
 Acq: 19 Nov 2019 09:19

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 55      | 80.1  | 62.6  | 93.8  |
| 98      | 46.7  | 37.2  | 55.8  |

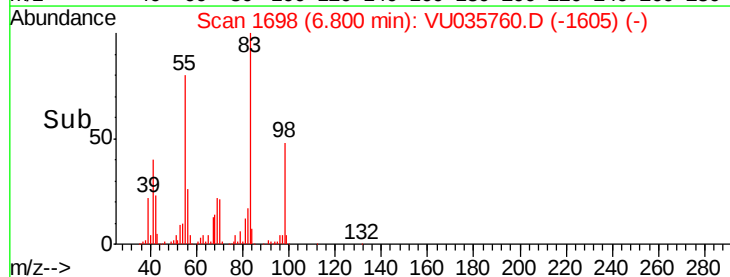
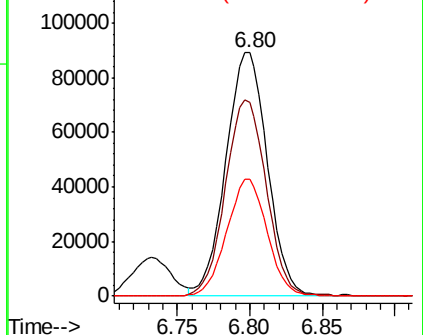


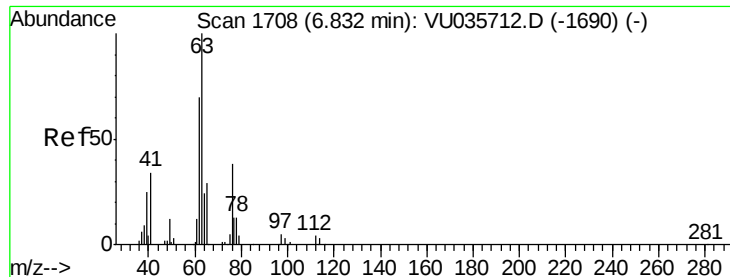
Abundance

Ion 83.15 (82.85 to 83.85): VU0

Ion 55.10 (54.80 to 55.80): VU0

Ion 98.15 (97.85 to 98.85): VU0

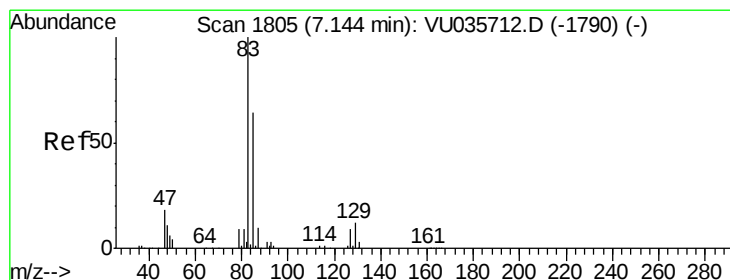
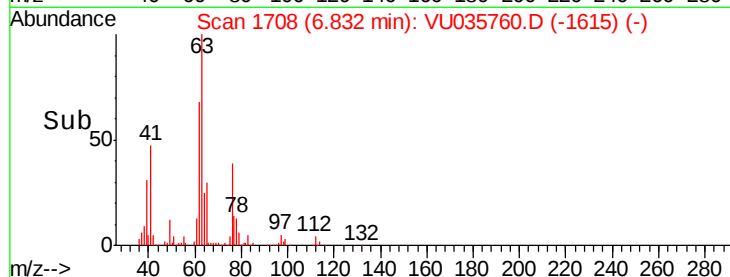
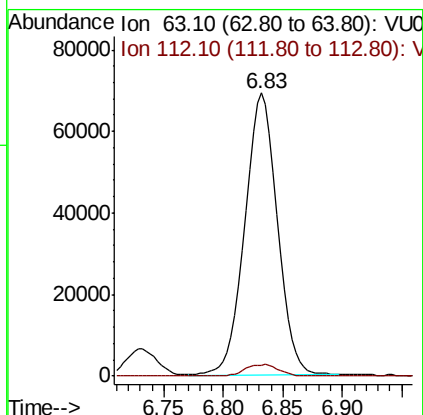
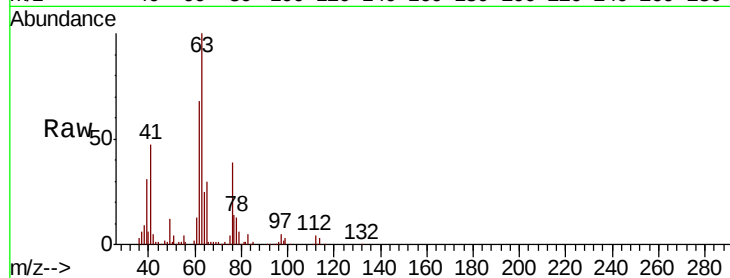




#37  
 1,2-Dichloropropane  
 Concen: 5.226 ug/L  
 RT: 6.83 min Scan# 1708  
 Delta R.T. 0.00 min  
 Lab File: VU035760.D  
 Acq: 19 Nov 2019 09:19

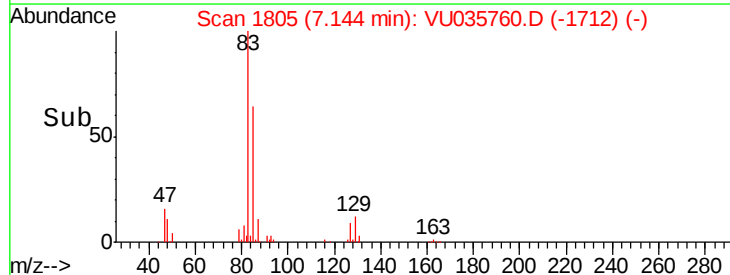
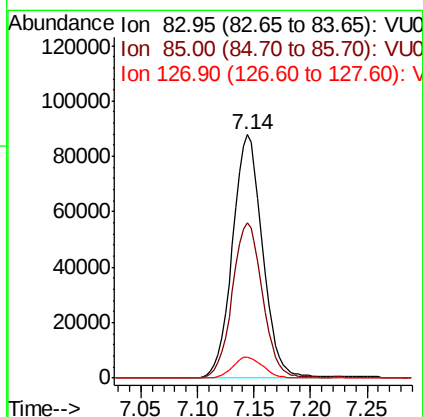
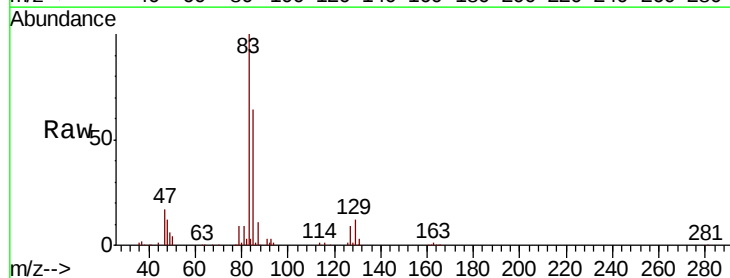
Instrument :  
 MSVOA\_U  
 ClientSampleId :

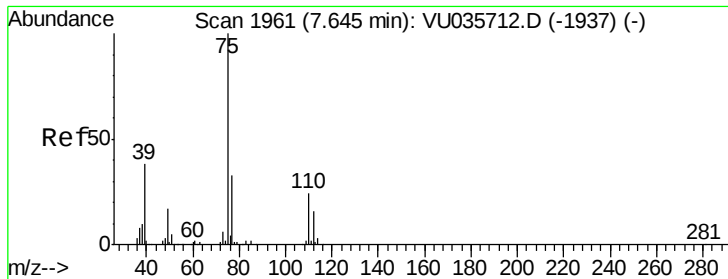
Tot Ion: 63 Resp: 131661  
 Ion Ratio Lower Upper  
 63 100  
 112 4.3 3.4 5.2



#38  
 Bromodichloromethane  
 Concen: 5.351 ug/L  
 RT: 7.14 min Scan# 1805  
 Delta R.T. 0.00 min  
 Lab File: VU035760.D  
 Acq: 19 Nov 2019 09:19

Tgt Ion: 83 Resp: 163109  
 Ion Ratio Lower Upper  
 83 100  
 85 63.7 44.7 82.9  
 127 8.8 7.1 10.7

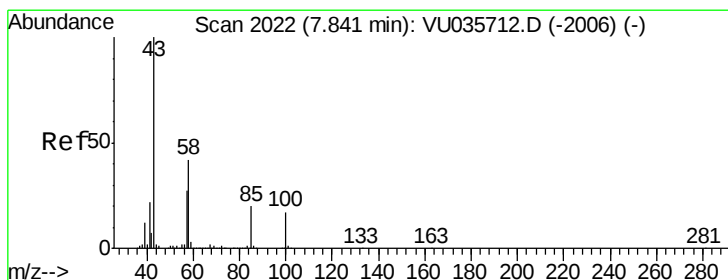
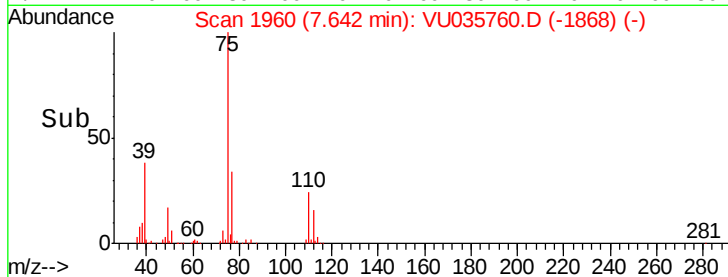
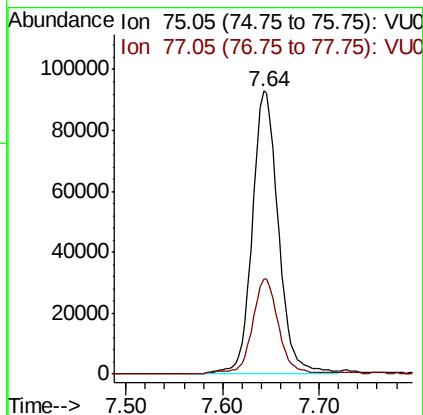
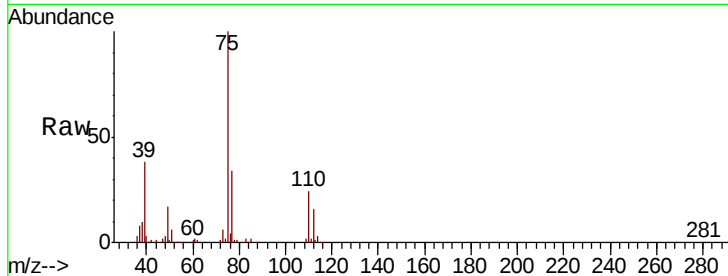




#39  
 cis-1,3-Dichloropropene  
 Concen: 4.857 ug/L  
 RT: 7.64 min Scan# 1960  
 Delta R.T. -0.00 min  
 Lab File: VU035760.D  
 Acq: 19 Nov 2019 09:19

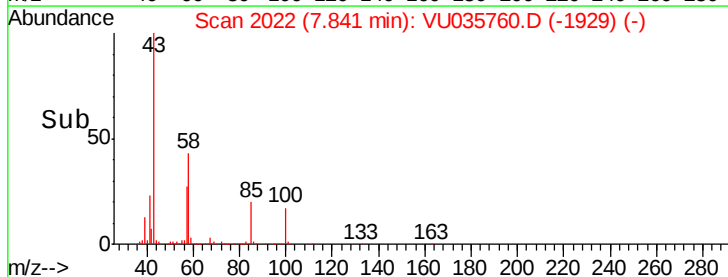
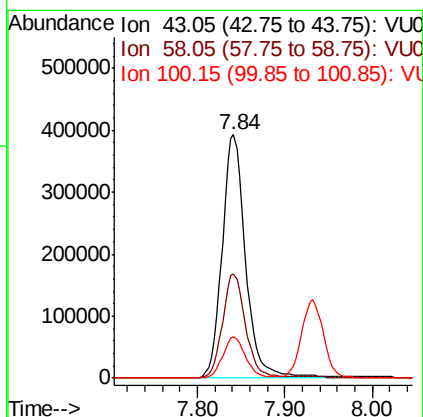
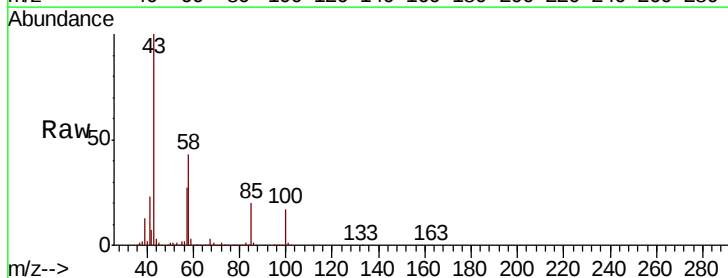
Instrument :  
 MSVOA\_U  
 ClientSampleId :

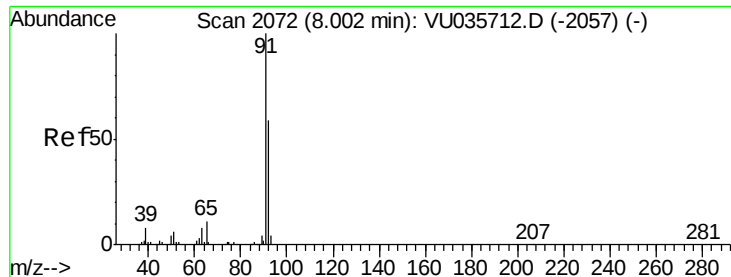
Tot Ion: 75 Resp: 174655  
 Ion Ratio Lower Upper  
 75 100  
 77 33.7 22.5 41.7



#40  
 4-Methyl-2-pentanone  
 Concen: 50.491 ug/L  
 RT: 7.84 min Scan# 2022  
 Delta R.T. 0.00 min  
 Lab File: VU035760.D  
 Acq: 19 Nov 2019 09:19

Tgt Ion: 43 Resp: 731491  
 Ion Ratio Lower Upper  
 43 100  
 58 42.2 33.4 50.2  
 100 16.4 12.7 19.1





#42

Toluene

Concen: 5.459 ug/L

RT: 8.00 min Scan# 2072

Delta R.T. 0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

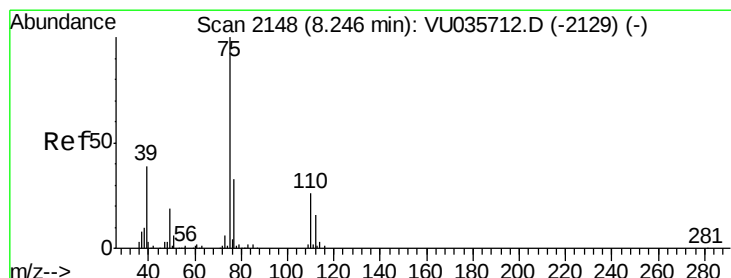
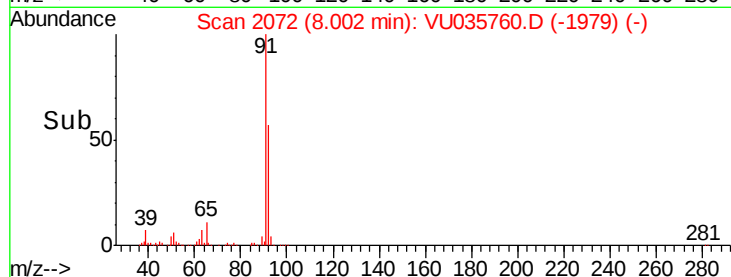
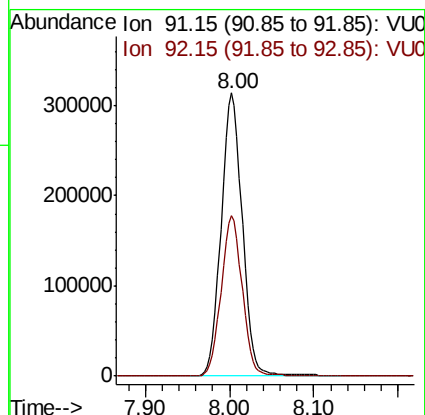
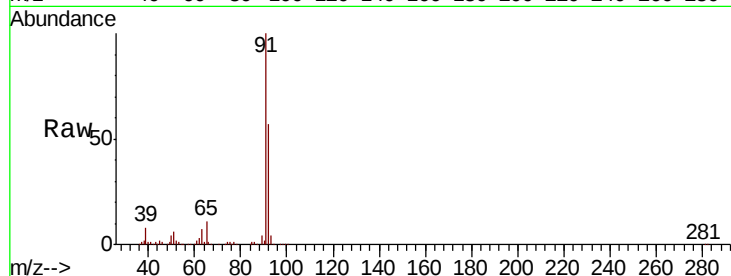
Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion: 91 Resp: 549188

Ion Ratio Lower Upper

91 100

92 56.8 40.5 75.3



#44

trans-1,3-Dichloropropene

Concen: 5.095 ug/L

RT: 8.25 min Scan# 2148

Delta R.T. 0.00 min

Lab File: VU035760.D

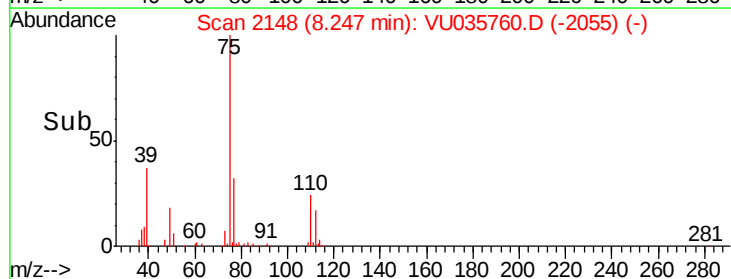
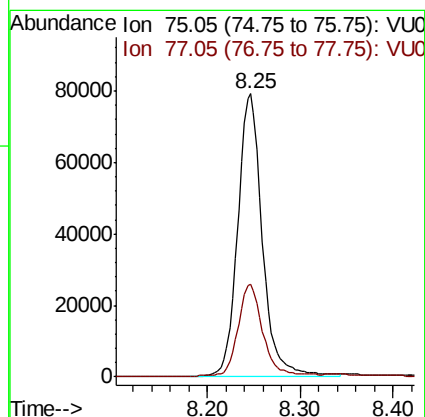
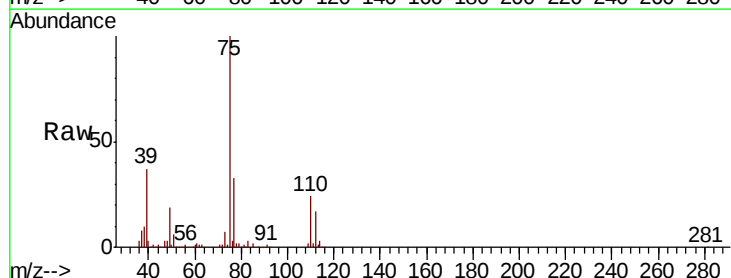
Acq: 19 Nov 2019 09:19

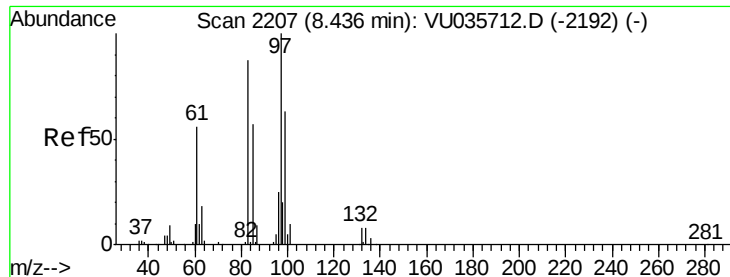
Tgt Ion: 75 Resp: 146473

Ion Ratio Lower Upper

75 100

77 32.8 21.6 40.2

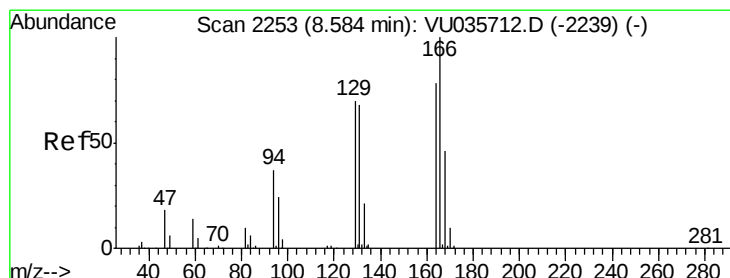
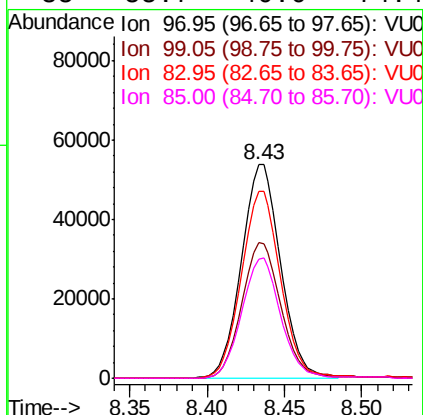
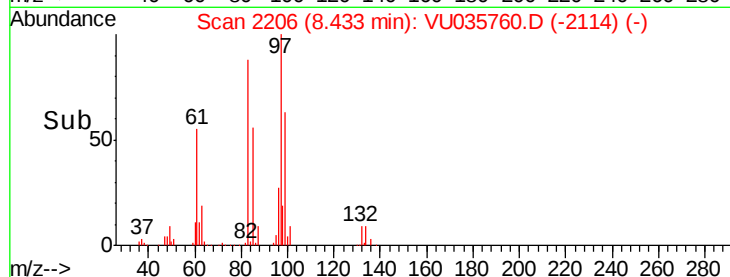
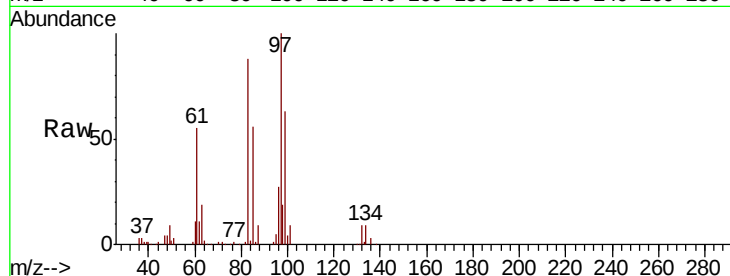




#45  
 1,1,2-Trichloroethane  
 Concen: 5.272 ug/L  
 RT: 8.43 min Scan# 2206  
 Delta R.T. -0.00 min  
 Lab File: VU035760.D  
 Acq: 19 Nov 2019 09:19

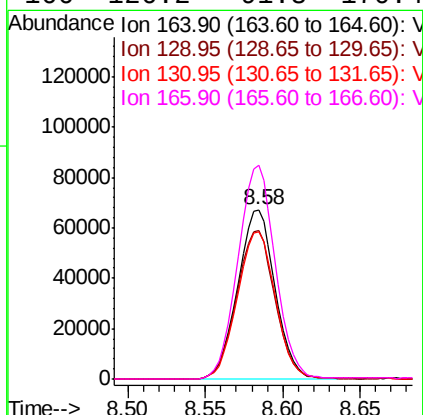
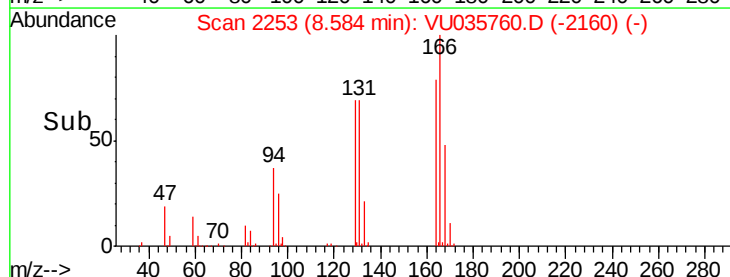
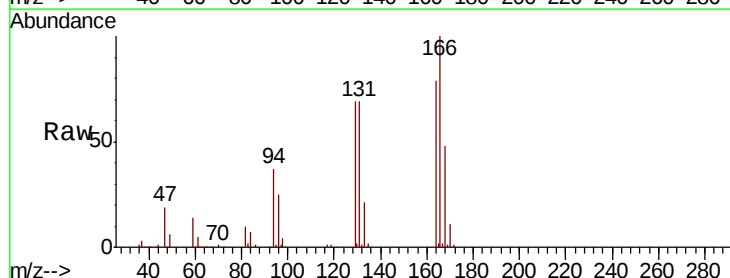
Instrument :  
 MSVOA\_U  
 ClientSampleId :

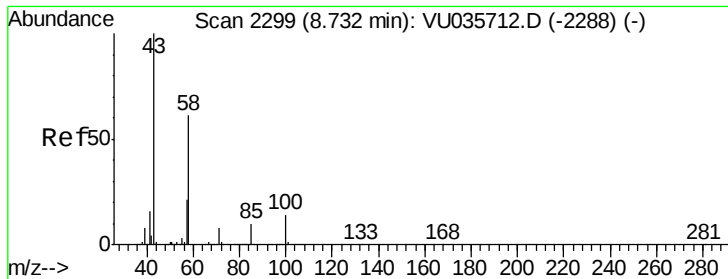
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 97    | Resp: | 95129 |
| Ion      | Ratio | Lower | Upper |
| 97       | 100   |       |       |
| 99       | 63.4  | 43.8  | 81.4  |
| 83       | 87.5  | 61.6  | 114.4 |
| 85       | 55.7  | 40.0  | 74.4  |



#47  
 Tetrachloroethene  
 Concen: 5.296 ug/L  
 RT: 8.58 min Scan# 2253  
 Delta R.T. 0.00 min  
 Lab File: VU035760.D  
 Acq: 19 Nov 2019 09:19

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 164   | Resp: | 112932 |
| Ion      | Ratio | Lower | Upper  |
| 164      | 100   |       |        |
| 129      | 87.4  | 64.7  | 120.1  |
| 131      | 86.7  | 61.6  | 114.4  |
| 166      | 126.2 | 91.8  | 170.4  |





#48

2-Hexanone

Concen: 53.097 ug/L

RT: 8.73 min Scan# 2298

Delta R.T. -0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

Instrument :

MSVOA\_U

ClientSampleId :

Tot Ion: 43 Resp: 546700

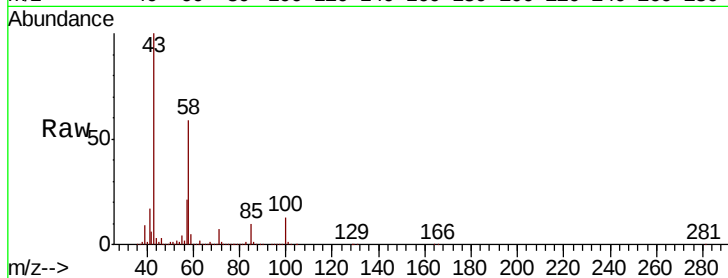
Ion Ratio Lower Upper

43 100

58 59.0 44.1 66.1

57 19.9 15.1 22.7

100 12.0 9.4 14.2

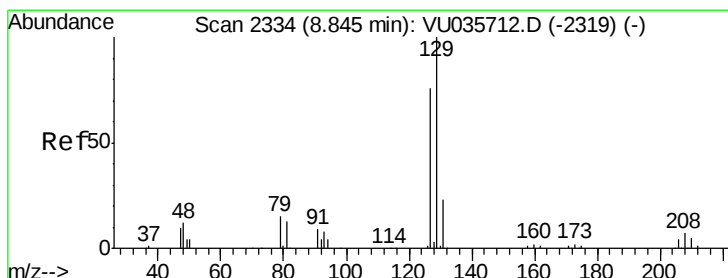
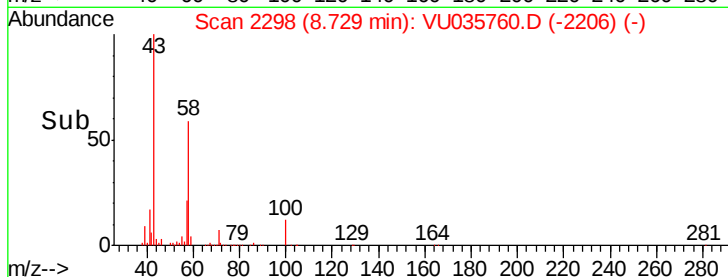
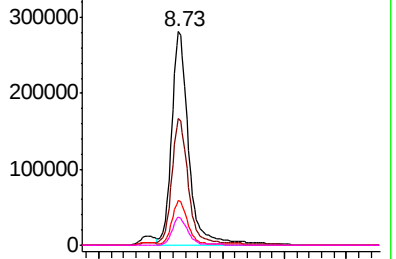


Abundance Ion 43.05 (42.75 to 43.75): VU0

Ion 58.05 (57.75 to 58.75): VU0

Ion 57.20 (56.90 to 57.90): VU0

Ion 100.15 (99.85 to 100.85): VU0



#49

Dibromochloromethane

Concen: 5.322 ug/L

RT: 8.84 min Scan# 2333

Delta R.T. -0.00 min

Lab File: VU035760.D

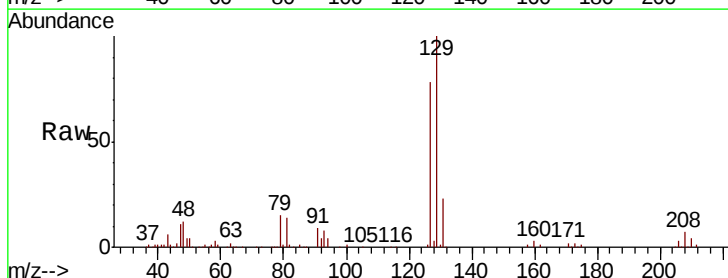
Acq: 19 Nov 2019 09:19

Tgt Ion: 129 Resp: 118460

Ion Ratio Lower Upper

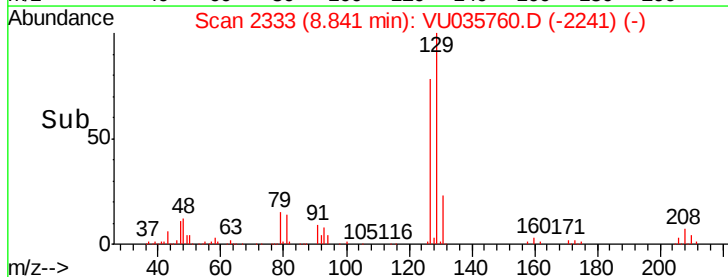
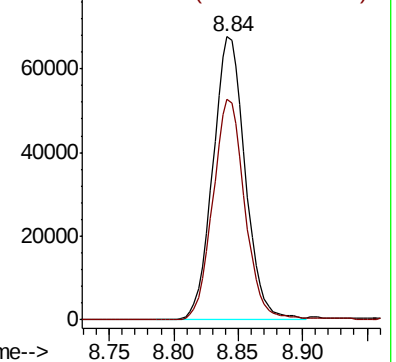
129 100

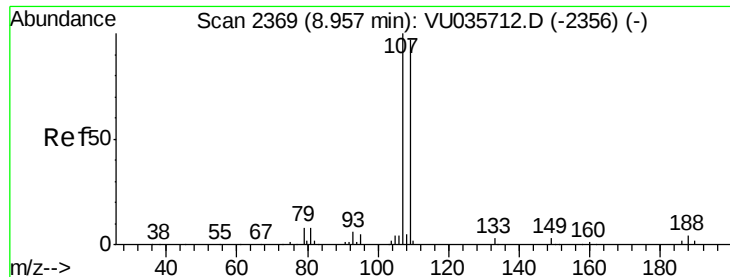
127 77.8 53.1 98.5



Abundance Ion 128.95 (128.65 to 129.65): V

Ion 126.90 (126.60 to 127.60): V

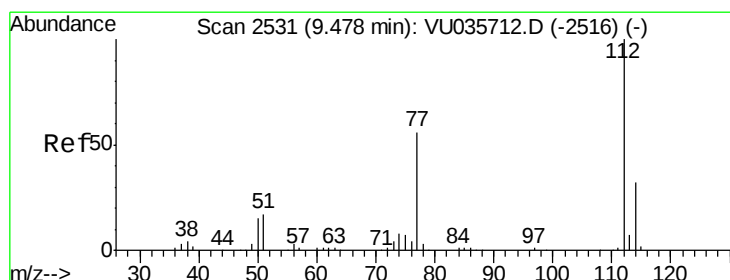
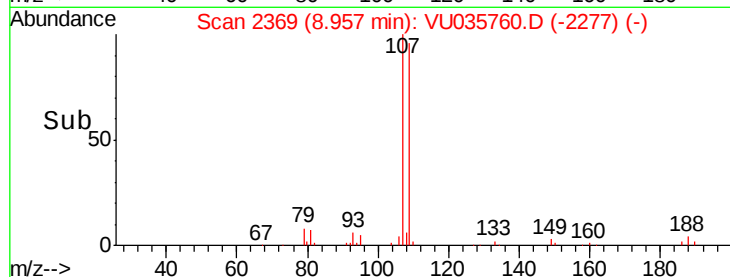
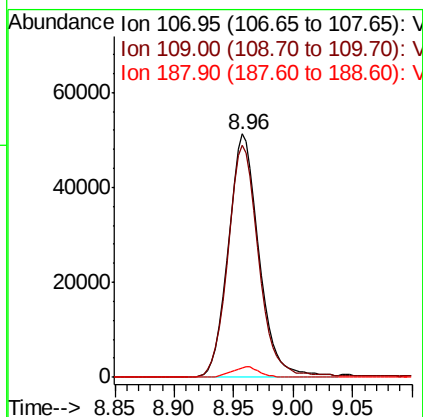
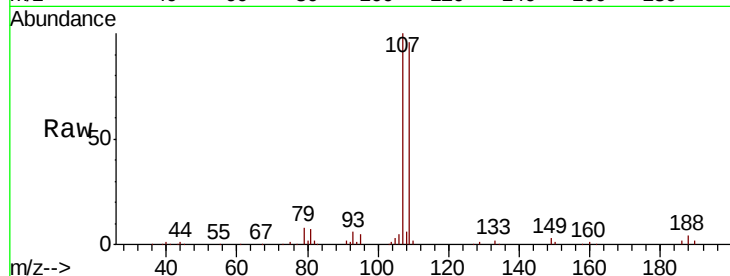




#50  
1,2-Dibromoethane  
Concen: 5.372 ug/L  
RT: 8.96 min Scan# 2369  
Delta R.T. -0.00 min  
Lab File: VU035760.D  
Acq: 19 Nov 2019 09:19

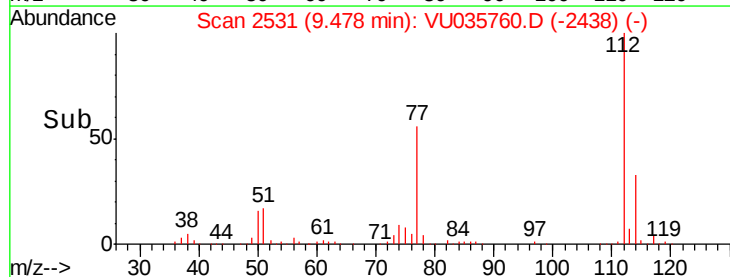
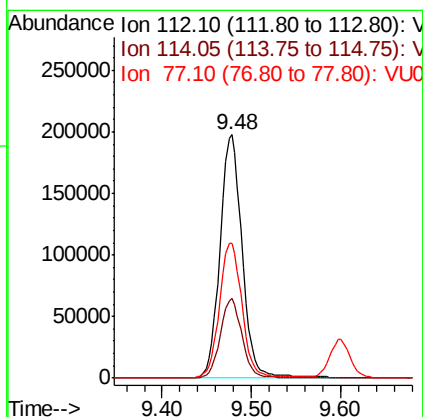
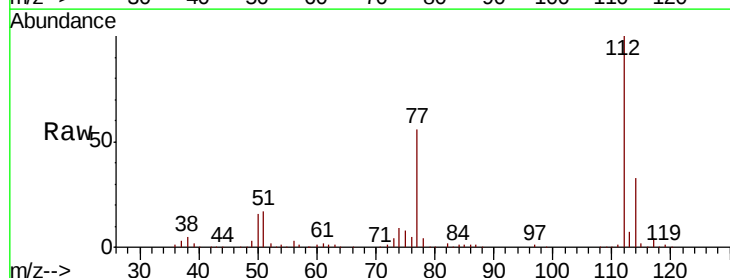
Instrument :  
MSVOA\_U  
ClientSampleId :

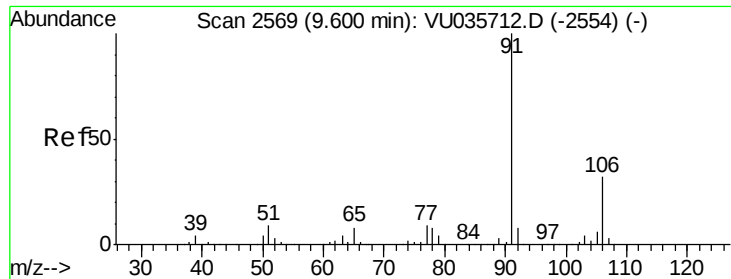
Tot Ion:107 Resp: 91968  
Ion Ratio Lower Upper  
107 100  
109 95.5 66.5 123.5  
188 3.9 3.1 4.7



#51  
Chlorobenzene  
Concen: 5.163 ug/L  
RT: 9.48 min Scan# 2531  
Delta R.T. 0.00 min  
Lab File: VU035760.D  
Acq: 19 Nov 2019 09:19

Tgt Ion:112 Resp: 341056  
Ion Ratio Lower Upper  
112 100  
114 32.5 22.3 41.5  
77 55.6 44.3 66.5





#52

Ethylbenzene

Concen: 5.096 ug/L

RT: 9.60 min Scan# 2569

Delta R.T. 0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

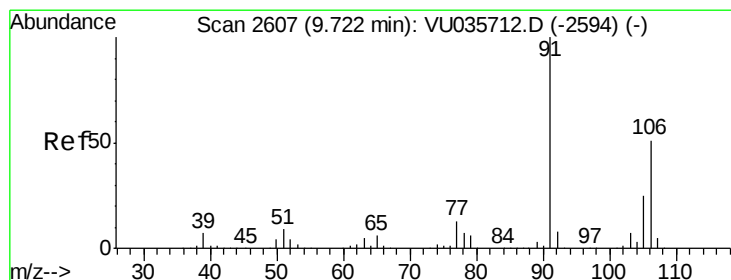
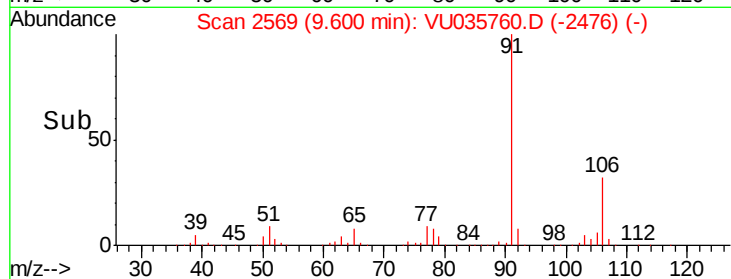
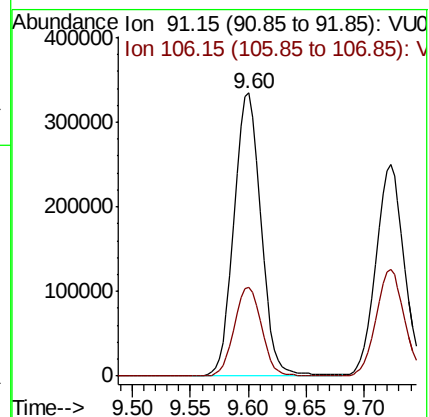
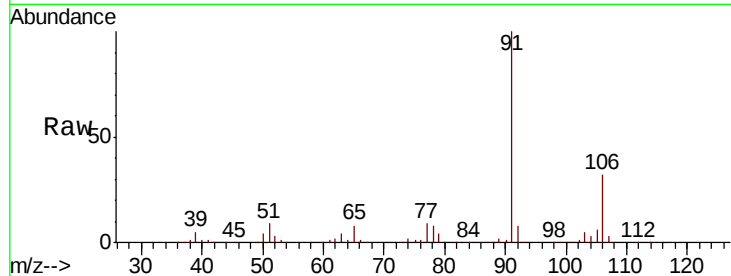
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 91 Resp: 539554

Ion Ratio Lower Upper

91 100

106 31.6 22.4 41.6



#53

m,p-Xylene

Concen: 5.375 ug/L

RT: 9.72 min Scan# 2607

Delta R.T. 0.00 min

Lab File: VU035760.D

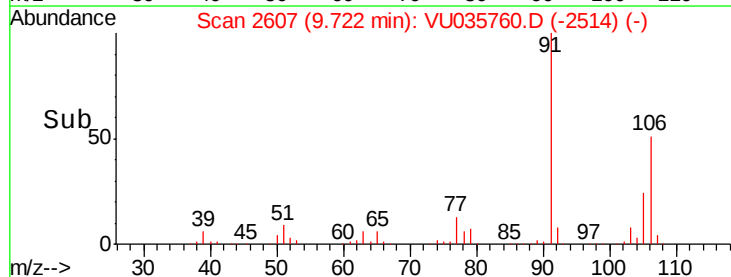
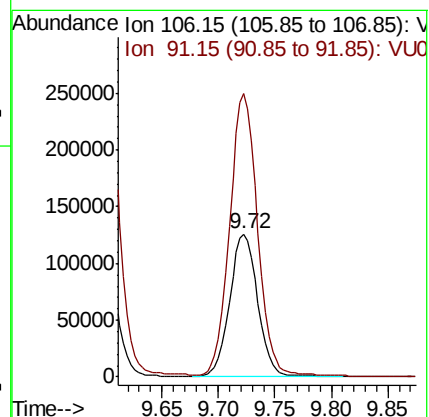
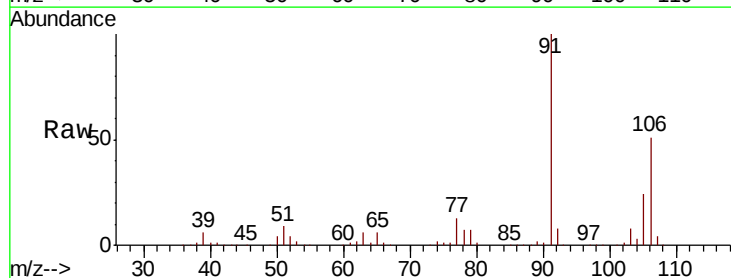
Acq: 19 Nov 2019 09:19

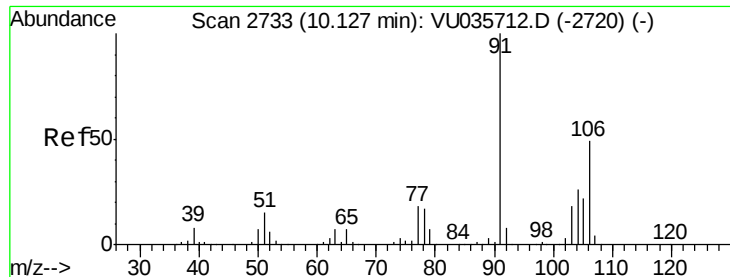
Tgt Ion: 106 Resp: 215499

Ion Ratio Lower Upper

106 100

91 197.8 139.4 259.0

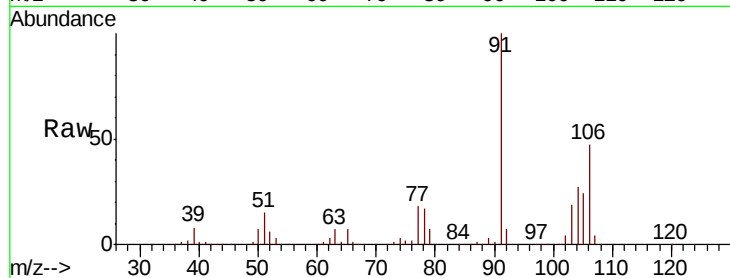




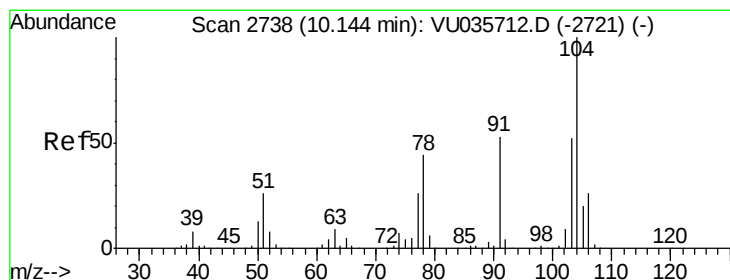
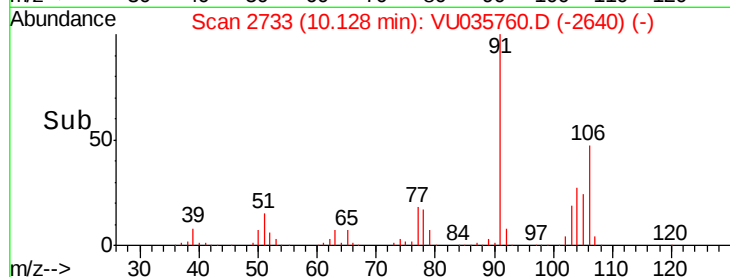
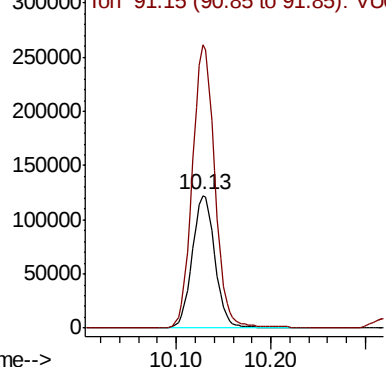
#54  
o-Xylene  
Concen: 5.301 ug/L  
RT: 10.13 min Scan# 2733  
Delta R.T. 0.00 min  
Lab File: VU035760.D  
Acq: 19 Nov 2019 09:19

Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion:106 Resp: 205375  
Ion Ratio Lower Upper  
106 100  
91 213.2 147.7 274.3

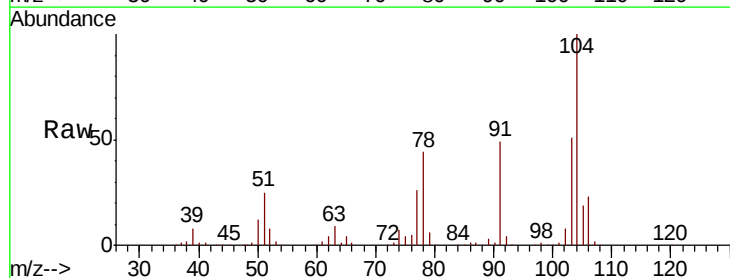


Abundance Ion 106.15 (105.85 to 106.85): V  
Ion 91.15 (90.85 to 91.85): VU0

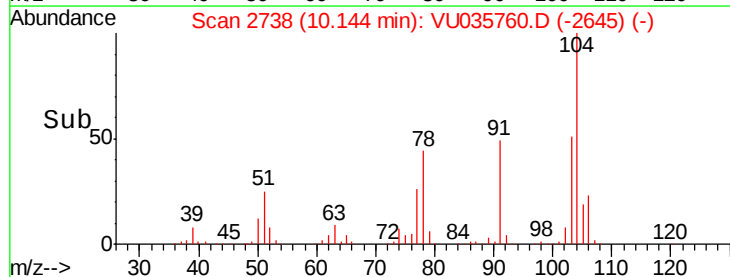
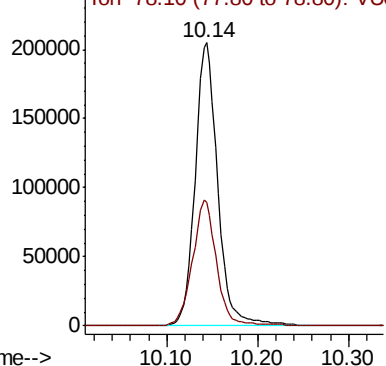


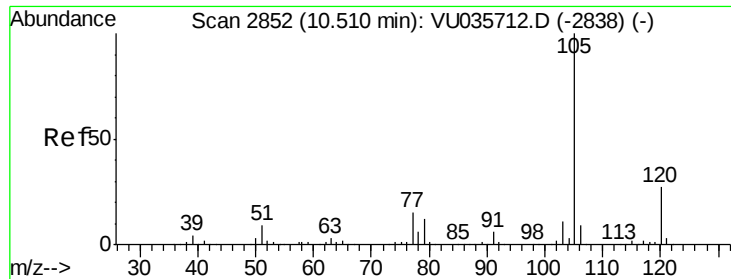
#55  
Styrene  
Concen: 5.516 ug/L  
RT: 10.14 min Scan# 2738  
Delta R.T. 0.00 min  
Lab File: VU035760.D  
Acq: 19 Nov 2019 09:19

Tgt Ion:104 Resp: 353331  
Ion Ratio Lower Upper  
104 100  
78 43.7 30.8 57.2



Abundance Ion 104.10 (103.80 to 104.80): V  
Ion 78.10 (77.80 to 78.80): VU0





#56

Isopropylbenzene

Concen: 5.268 ug/L

RT: 10.51 min Scan# 2852

Delta R.T. -0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

Instrument :

MSVOA\_U

ClientSampled :

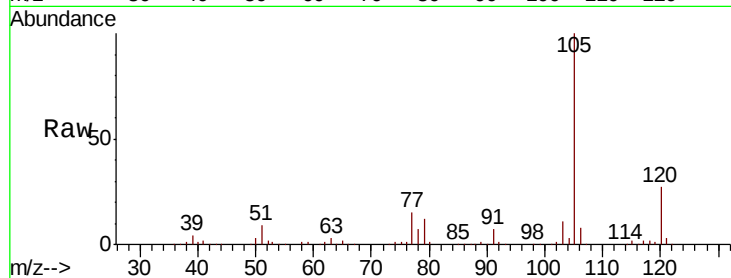
Tot Ion:105 Resp: 538629

Ion Ratio Lower Upper

105 100

120 26.6 21.4 32.2

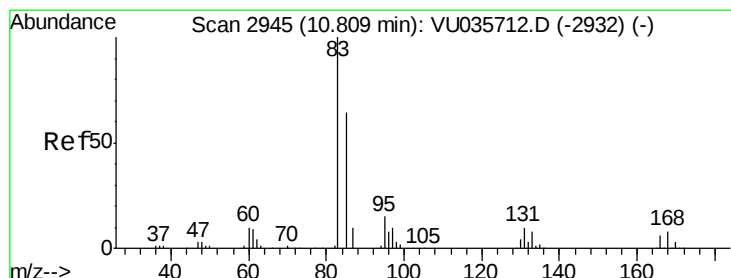
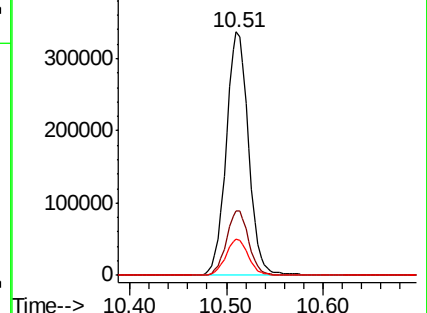
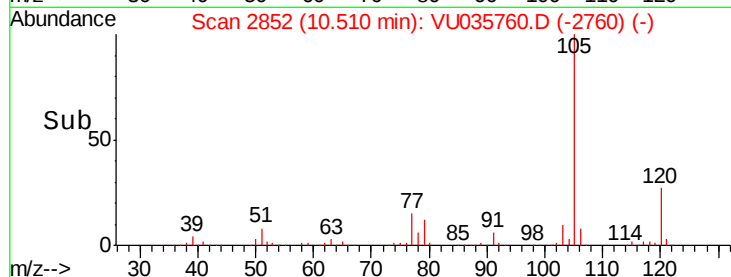
77 15.3 11.8 17.8



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.10 (119.80 to 120.80): V

Ion 77.10 (76.80 to 77.80): V



#58

1,1,2,2-Tetrachloroethane

Concen: 5.266 ug/L

RT: 10.81 min Scan# 2945

Delta R.T. 0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

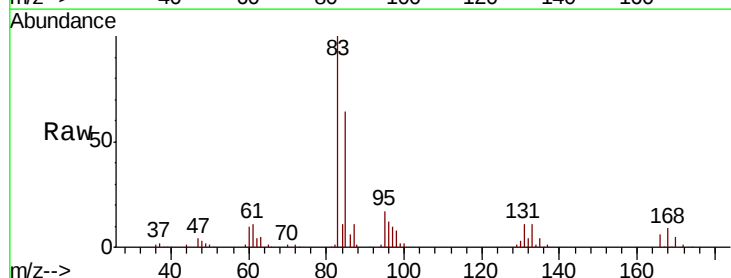
Tgt Ion: 83 Resp: 124154

Ion Ratio Lower Upper

83 100

85 64.3 45.2 84.0

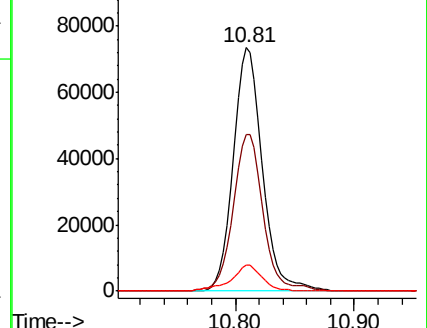
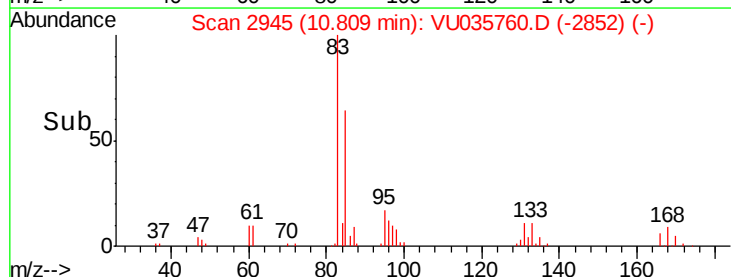
131 10.6 8.2 12.4

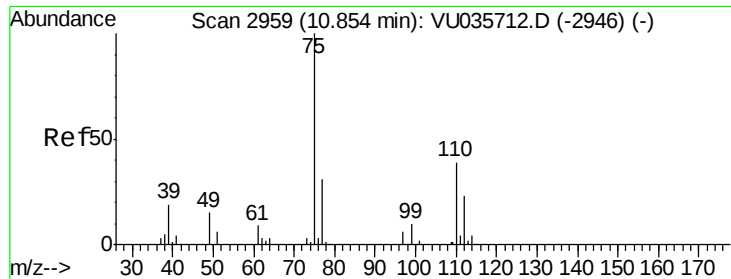


Abundance Ion 82.95 (82.65 to 83.65): V

Ion 85.00 (84.70 to 85.70): V

Ion 130.95 (130.65 to 131.65): V





#59

1,2,3-Trichloropropane

Concen: 5.286 ug/L

RT: 10.85 min Scan# 2958

Delta R.T. 0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

Instrument :

MSVOA\_U

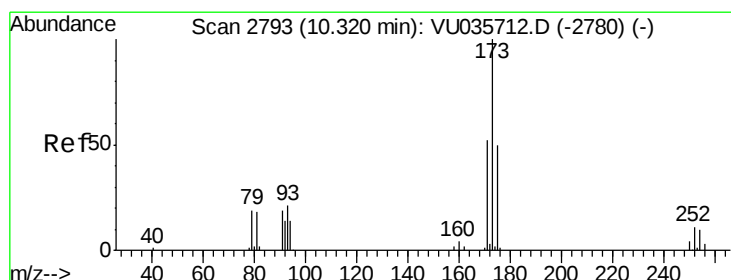
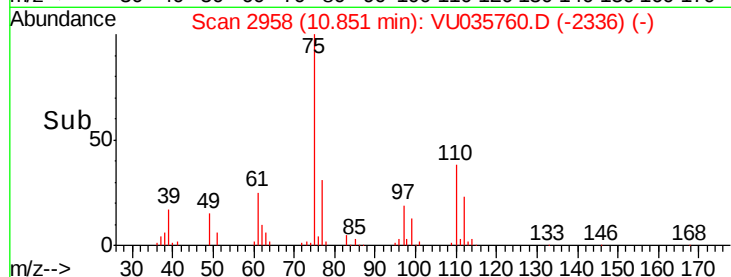
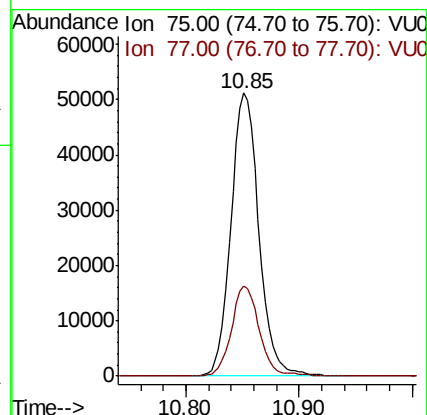
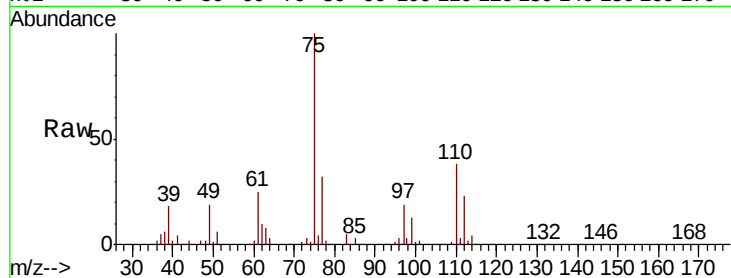
ClientSampled :

Tot Ion: 75 Resp: 88088

Ion Ratio Lower Upper

75 100

77 31.7 26.8 40.2



#61

Bromoform

Concen: 5.012 ug/L

RT: 10.32 min Scan# 2793

Delta R.T. 0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

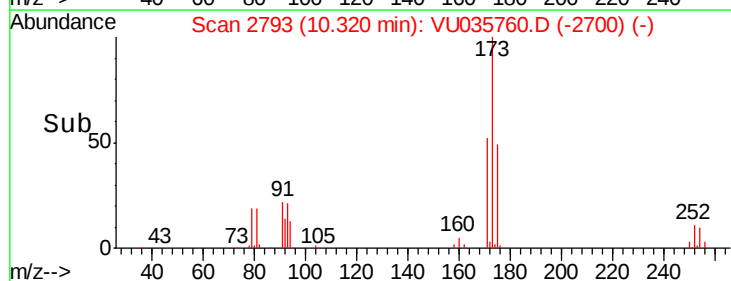
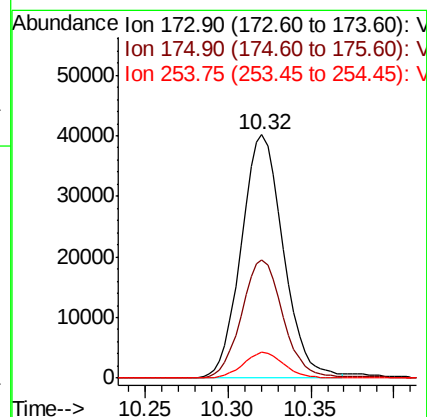
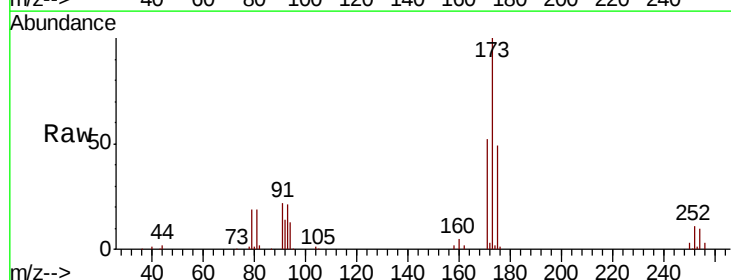
Tgt Ion: 173 Resp: 70881

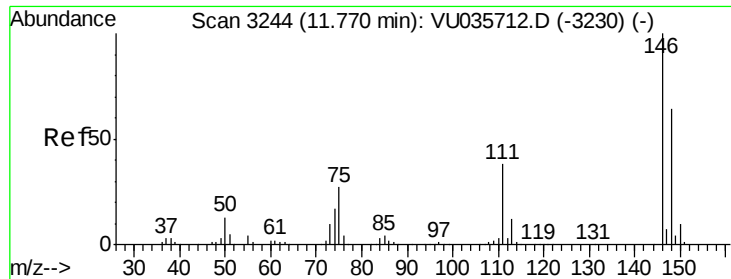
Ion Ratio Lower Upper

173 100

175 47.8 39.0 58.4

254 10.1 8.5 12.7





#62

1,3-Dichlorobenzene

Concen: 5.194 ug/L

RT: 11.77 min Scan# 3244

Delta R.T. 0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

Instrument :

MSVOA\_U

ClientSampled :

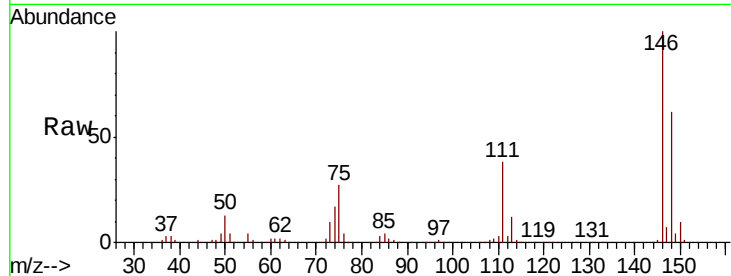
Tot Ion:146 Resp: 271748

Ion Ratio Lower Upper

146 100

111 37.9 26.7 49.5

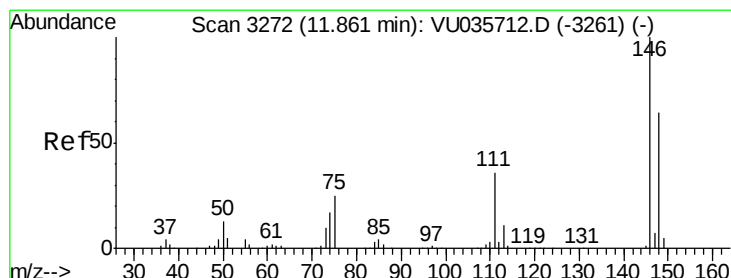
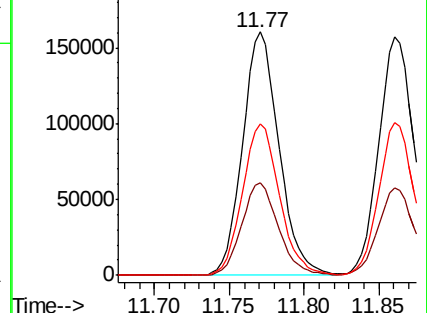
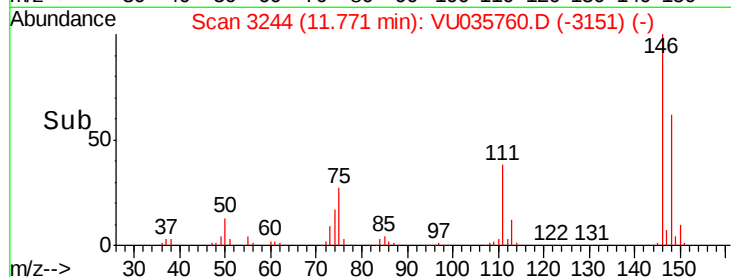
148 62.1 44.5 82.7



Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#63

1,4-Dichlorobenzene

Concen: 5.267 ug/L

RT: 11.86 min Scan# 3272

Delta R.T. 0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

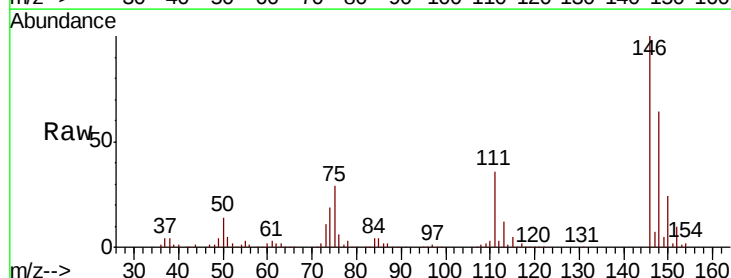
Tgt Ion:146 Resp: 265339

Ion Ratio Lower Upper

146 100

111 36.4 25.9 48.1

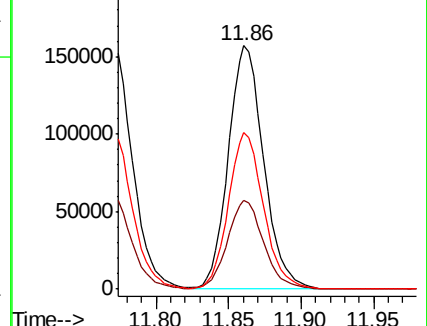
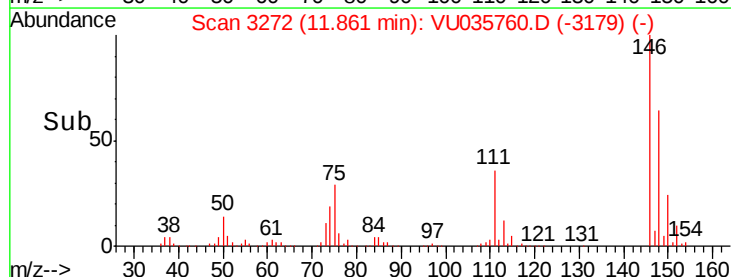
148 64.1 44.1 81.9

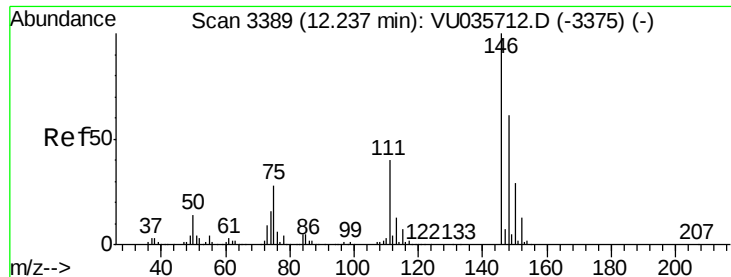


Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V

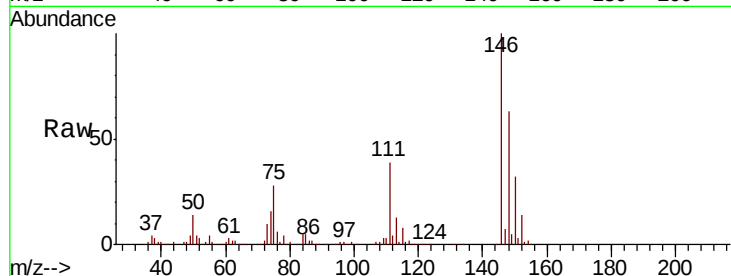




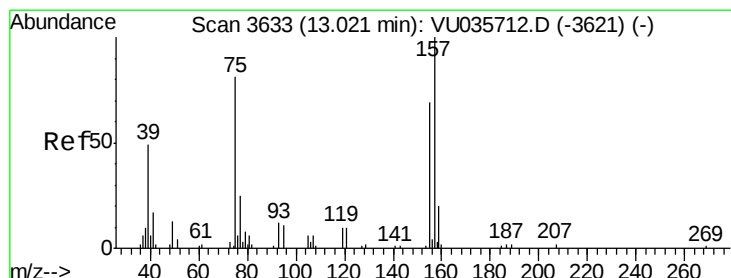
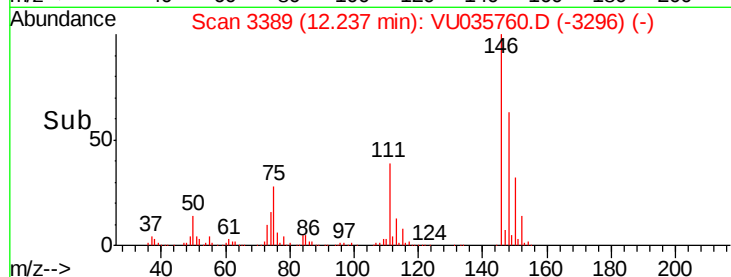
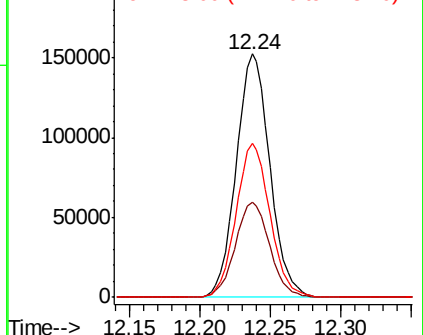
#65  
 1,2-Dichlorobenzene  
 Concen: 5.182 ug/L  
 RT: 12.24 min Scan# 3389  
 Delta R.T. 0.00 min  
 Lab File: VU035760.D  
 Acq: 19 Nov 2019 09:19

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Tot Ion:146 Resp: 254430  
 Ion Ratio Lower Upper  
 146 100  
 111 39.0 32.2 48.4  
 148 63.2 50.7 76.1

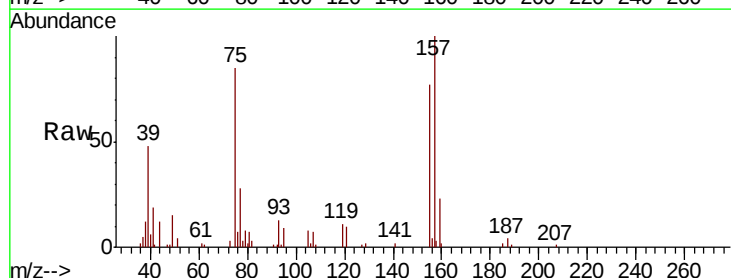


Abundance Ion 145.95 (145.65 to 146.65): V  
 Ion 111.00 (110.70 to 111.70): V  
 Ion 148.00 (147.70 to 148.70): V

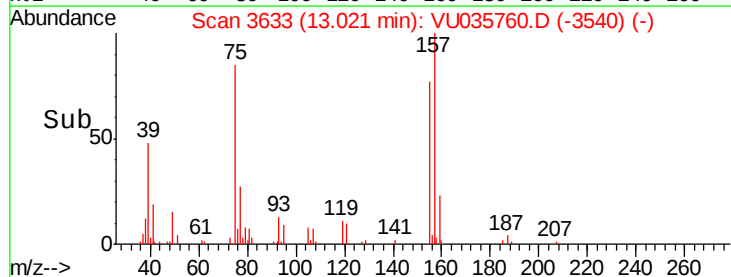
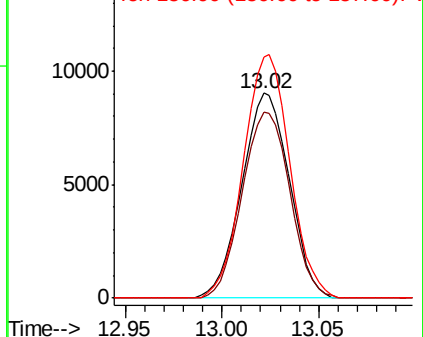


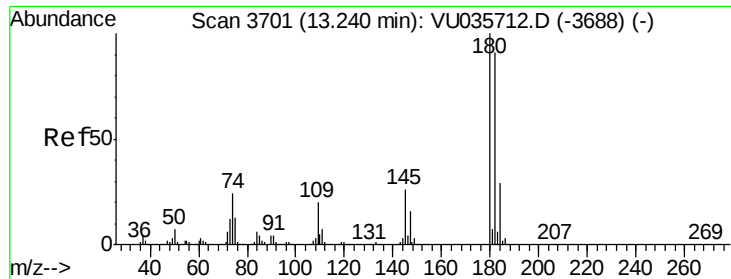
#66  
 1,2-Dibromo-3-chloropropane  
 Concen: 4.955 ug/L  
 RT: 13.02 min Scan# 3633  
 Delta R.T. 0.00 min  
 Lab File: VU035760.D  
 Acq: 19 Nov 2019 09:19

Tgt Ion: 75 Resp: 15480  
 Ion Ratio Lower Upper  
 75 100  
 155 90.7 73.3 109.9  
 157 117.9 102.2 153.4



Abundance Ion 75.05 (74.75 to 75.75): VU0  
 Ion 154.95 (154.65 to 155.65): V  
 Ion 156.90 (156.60 to 157.60): V

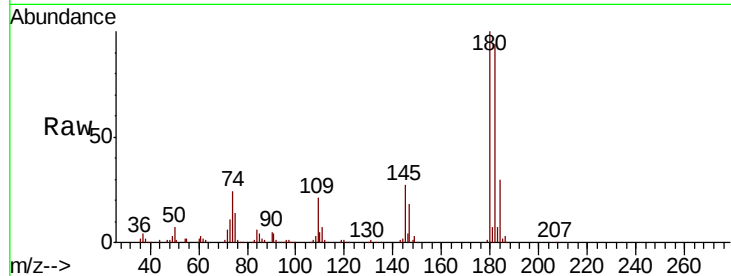




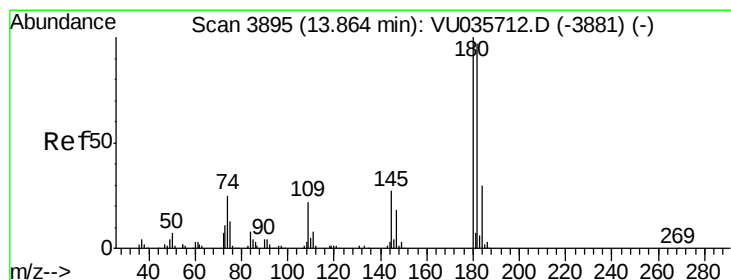
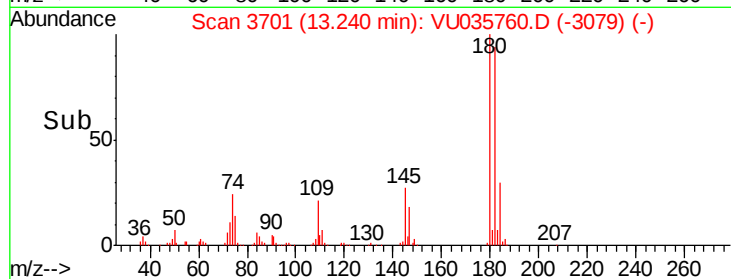
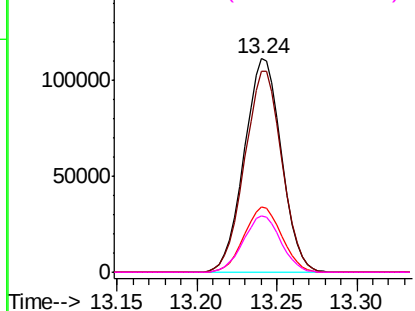
#67  
 1,3,5-Trichlorobenzene  
 Concen: 5.230 ug/L  
 RT: 13.24 min Scan# 3701  
 Delta R.T. 0.00 min  
 Lab File: VU035760.D  
 Acq: 19 Nov 2019 09:19

Instrument :  
 MSVOA\_U  
 ClientSampleId :

|             |       |             |
|-------------|-------|-------------|
| Tot Ion:180 | Resp: | 176352      |
| Ion         | Ratio | Lower Upper |
| 180         | 100   |             |
| 182         | 94.8  | 75.9 113.9  |
| 184         | 30.9  | 24.1 36.1   |
| 145         | 26.7  | 21.5 32.3   |

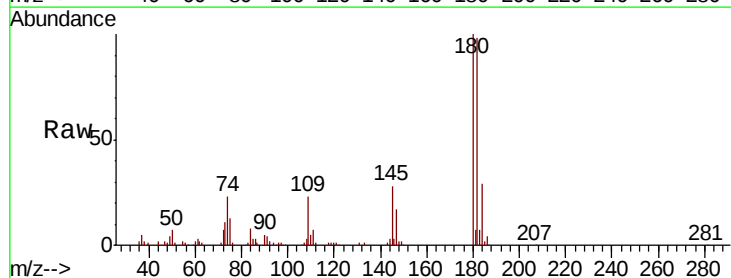


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

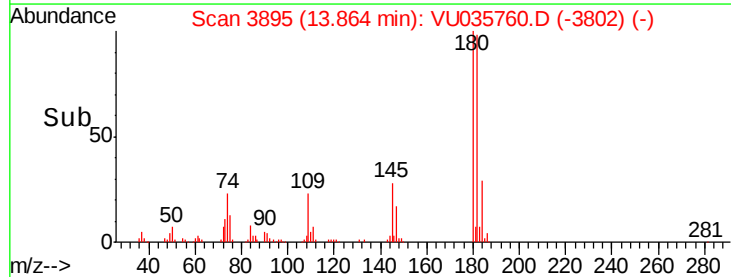
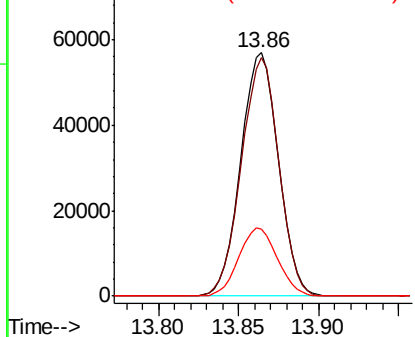


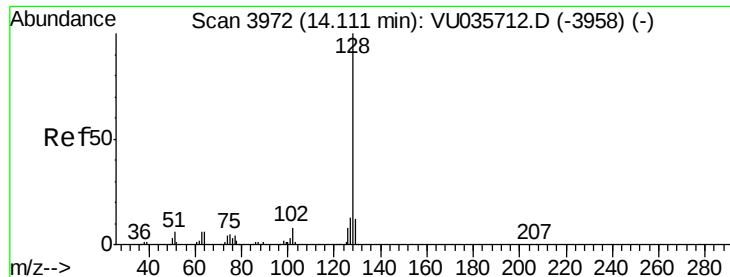
#68  
 1,2,4-trichlorobenzene  
 Concen: 4.518 ug/L  
 RT: 13.86 min Scan# 3895  
 Delta R.T. 0.00 min  
 Lab File: VU035760.D  
 Acq: 19 Nov 2019 09:19

|             |       |             |
|-------------|-------|-------------|
| Tgt Ion:180 | Resp: | 91799       |
| Ion         | Ratio | Lower Upper |
| 180         | 100   |             |
| 182         | 97.3  | 77.4 116.2  |
| 145         | 28.6  | 22.2 33.4   |



Abundance Ion 179.90 (179.60 to 180.60): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 144.95 (144.65 to 145.65): V





#69

Naphthalene

Concen: 3.832 ug/L

RT: 14.11 min Scan# 3972

Delta R.T. 0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

Instrument :

MSVOA\_U

ClientSampleId :

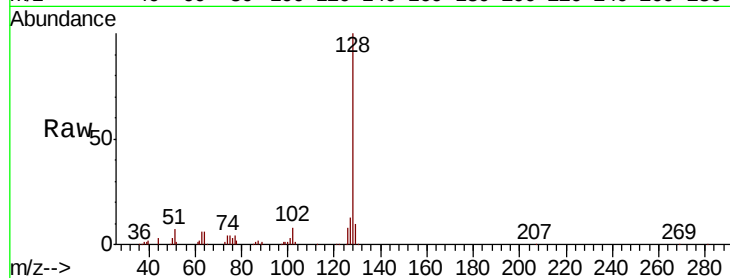
Tot Ion:128 Resp: 95861

Ion Ratio Lower Upper

128 100

129 10.5 8.1 12.1

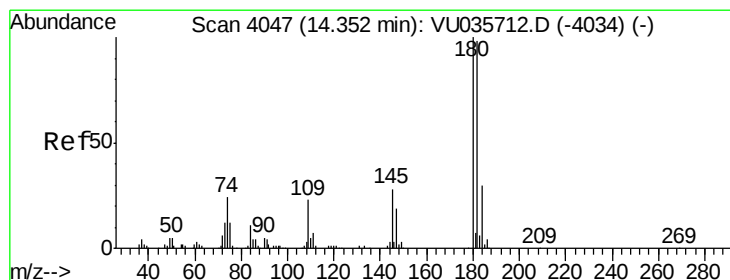
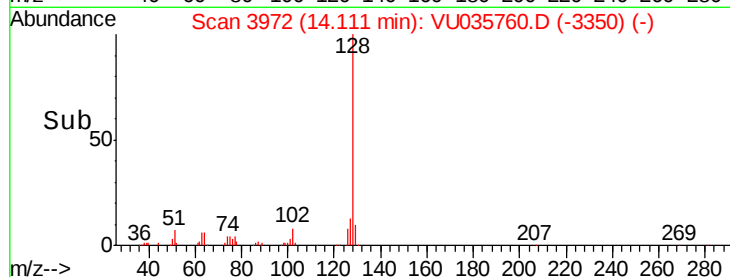
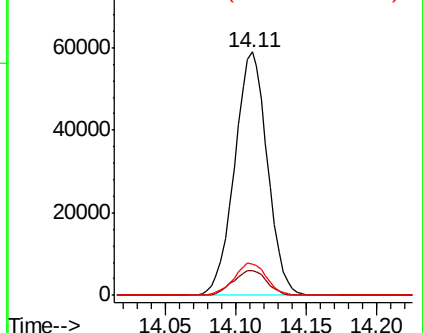
127 13.3 11.0 16.4



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V



#70

1,2,3-Trichlorobenzene

Concen: 4.632 ug/L

RT: 14.35 min Scan# 4047

Delta R.T. 0.00 min

Lab File: VU035760.D

Acq: 19 Nov 2019 09:19

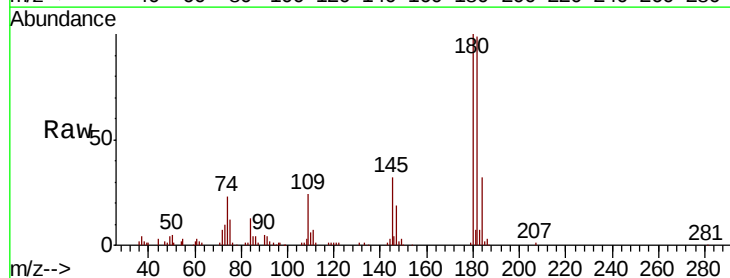
Tgt Ion:180 Resp: 90992

Ion Ratio Lower Upper

180 100

182 96.0 74.8 112.2

145 30.3 23.6 35.4



Abundance Ion 179.90 (179.60 to 180.60): V

Ion 181.90 (181.60 to 182.60): V

Ion 144.95 (144.65 to 145.65): V

